

TOTTENHAM URBAN DISTRICT COUNCIL.

PUBLIC HEALTH DEPARTMENT,

BRUCE CASTLE,

F. BUTLER-HOGAN,

B.A., M.D., D.P.H., &

MEDICAL OFFICER

OF HEALTH.

TOTTENHAM, 2nd mch. 1904.

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Officer of Health.*



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Tottenham Urban District Council.

“SALUS POPULI SUPREMA LEX EST.”

REPORT

ON THE

Health of Tottenham,

FOR THE YEAR 1903,

BY

J. F. BUTLER-HOGAN, B.A., M.D., D.P.H., &c.

(MEDICAL OFFICER OF HEALTH.)

“There can be no higher or holier ambition than this, to
“ameliorate The Health of the People, not only from a physical
“but also from a mental and moral standpoint; it is the aim alike
“of the true Pastor and the good Physician, of the purest
“patriotism and the most fervid philanthropy.”

BUTLER-HOGAN (“*Sanitary Dwellings*”)

TOTTENHAM :

CRUSHA & SON, “HERALD” OFFICE.

Names of Members of the Sanitary Committee, Tottenham.

C. C. KNIGHT, Esq., F.Z.S., (Chairman).

L. E. WARD, Esq., J.P., (Chairman of the Council), *ex-officio*.

T. H. CAMP, Esq., (Vice-Chairman), *ex-officio*.

P. B. MALONE, Esq., J.P., (formerly Chairman of the Council.)

J. H. BLOOMFIELD, Esq.

W. BROWN, Esq., (ex-Chairman of the Council).

C. CROWE, Esq.

R. H. MATTHEWS, Esq., (Chairman of Sanitary Committee,
1901 and 1902).

Officers of the Council.

Clerk to the Council ... E. CROWNE, Esq.

Engineer „ „ ... W. H. PRESCOTT, Esq., A.M.I.C.E.

Solicitor „ „ ... F. SHELTON, Esq.

Medical Officer of Health }
to the Council ... } J. F. BUTLER-HOGAN, B.A., M.D.,
D.P.H., (Camb.), etc.

REPORT.

PUBLIC HEALTH DEPARTMENT,

BRUCE CASTLE.

TOTTENHAM.

January, 1904.

TO THE CHAIRMAN AND MEMBERS OF THE TOTTENHAM
URBAN DISTRICT COUNCIL

GENTLEMEN,

It affords me great pleasure, on the presentation of this, my second Annual Report, to be in a position to congratulate you on the greatly improved—and indeed now excellent—condition of the health of your District.

The General Death Rate of Tottenham for the year 1903 amounted to 10·7 per 1000 as compared with 13·4 for 1902 and 14·6 for 1901, that is to say, there has been a reduction during the past 2 years of about 4 per 1000 in the number of deaths occurring in the Parish.

The Zymotic Death Rate is, if possible, even more satisfactory, being only 1·4 for the year that has just

closed as against 2·1 for 1902 and 3·7 for 1901, which means that the deaths from infectious diseases in 1903 were little more than one-third what they were in 1901.

The number of deaths from Phthisis (Consumption) was considerably lower than that of last year (57 against 87) but I should nevertheless like to reiterate the expression of my conviction that the spread of this disease would be even more materially lessened were it brought under the operation of the Infectious Diseases Notification Act, for the Medical Officer of Health could then provide for the proper treatment of Phthisical Sputa and the regular disinfection of the rooms and clothes used by consumptive patients; in this connection, too, I earnestly trust that the proposed Sanatorium for Middlesex will receive enthusiastic support from everybody interested in the welfare of Tottenham.

The deaths from Typhoid were only three-fifths of those for 1902 and less than one-third of those for 1901.

I have carefully examined the Registrar General's statistics, and can find no evidence of similar sanitary progress in so short a period for any District in the British Isles; it is a proud record, and one which I trust will be not merely upheld, but even still further improved. The result has not, however, been obtained without labour; the Public Health Department has been com

pletely reorganised and its work enormously increased during the past two years, so that it is at present very onerous indeed ; this is due partly to the more regular and thorough system of house to house inspection now obtaining, partly to the great increase of population, partly to the care bestowed on the people's food supply, and finally to the trend of recent legislation. I am glad, however, to be able to report that, notwithstanding the extra pressure, my staff—as a whole—has worked loyally, energetically and, as this Report shows, not unsuccessfully in the discharge of their respective duties.

I have maintained during the year the most friendly relations with my official colleagues as well as with my medical confrères throughout the district; without such an *entente cordiale* the work of a Medical Officer of Health would be hopelessly hampered ; it is particularly pleasing to recall the occasions on which members of *the* profession have proffered their kindly co-operation when such conduct on their behalf militated against their own pecuniary interests.

I am indebted to your Clerk and Engineer for much detailed information embodied in this Report, and to Dr. Hooper May for kindly presenting me with the

records of the Tottenham Sanitary Association for the decennial period 1874-1883 inclusive. My sincerest thanks are also due to the Chairman and members of the Council, and even more particularly to the Chairman and members of the Sanitary Committee for the support, sympathy and appreciation they have so fully and freely accorded to the work of this Department since my appointment two years ago.

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The Health of its People is a nation's greatest worldly treasure, and it will be well for the whole Empire, as also for its constituent parts, when Public Health Administration takes its due place as of premier and paramount importance amongst local and national interests.

I am,

Gentlemen,

Faithfully yours,

J. F. BUTLER-HOGAN.

RETROSPECT.

Tottenham, in the ancient record of Domesday Book, is called Toteham; it formed part of the hundred of Edmonton, in the County of Middlesex, and is situated in latitude $51^{\circ} 35' 59''$ N., and in longitude $0^{\circ} 4' 31''$ W. from Greenwich, and is about 6 miles from Charing Cross. It is bounded on the E. by Walthamstow in Essex, from which it is separated by the River Lea, on the W. by Hornsey and Wood Green, on the N. by Edmonton, and on the S. by Hackney and Stoke Newington. The form of the Parish is irregularly trapezoidal. The etymology of the name is derived from the Saxon words "Totia" and "Ham," the first of which signifies a projection with a long end or corner like a horn, and is supposed in this instance to have originated from the form of the Western part of the Parish (now Wood Green); "Ham," the latter portion of the word is a common ending to the names of places, and signifies a town or dwelling place. According to some authorities the Ancient Roman Basilical Way led through part of Enfield Chase in its passage to Hertford, which road, coming from Moorgate and passing through Newington and thence through several "Green Lanes" to the East of Hornsey entered Enfield Chase. This was the road

by which the Londoners marched on, with Alfred at their head, in the year 895, to attack a strong fortification the Danes had built at Hertford. It is interesting to note from Pole's History of Middlesex that about A.D. 1210 the headlands, commons, waste grounds, and greens formed a very considerable part of the County of Middlesex. They were granted to the tenants of the respective Manors for pasturage for their cattle, for fuel and other necessities; some of them were very extensive, and belonged to and made parts of this Parish, viz.:—Wood Green, West Green, Ducketts Green, Hanger Green, Bean's Green, Bounds Green, Chapman's Green, Else's Green, Smith's Cross Green, Page Green, Tottenham (High Cross) Green, etc.

According to the return of the state of the culture of lands in the Parish in 1822-3 Tottenham had a total area of 3932 acres, 2660 acres of which were "mown land," 289 acres "marsh land," 650 acres "Fed land," 50 acres of "Clover and Hay," 128 acres of "Wheat," 125 acres of "Potatoes," 21 acres of "Turnips," 120 acres of "Oats," 3 acres of "Barley," 28 acres of "Beans," 6 acres of "Cabbages," 48 acres in "Gardens," 34 acres of "Fallow," 48 acres of "Tares," and 11 acres of "Wood."

THE SOIL.

The surface of the principal part of the Parish may be said to consist of a stiff, heavy soil ; there is, however, diversity in it, for here and there are found patches of brick earth and loam, and in other places considerable deposits of gravel ; but where neither loam nor gravel is found, the vegetable mould, which in general is not very deep, lies upon a stiff bed of clay : near the surface it has an ocherous tinge, but at no considerable depth it is of a dark blue or blackish colour.

GEOLOGICAL ITEMS.

The range of chalk hills from Hungerford to Cromer dips gently beneath the sand to the S.E., while the range from Hungerford to Dover dips gently towards the North ; the chalk of the two ranges is connected, passing beneath Middlesex, Essex, Suffolk and Norfolk, and even beyond them beneath the sea bordering the coast of the three latter counties ; we are therefore to conceive the whole of this tract to be situated in a vast hollow in the chalk, which is geologically termed the chalk basin of London. The layer of sand which passes above this chalk from Hungerford to Dover is the very sand from which rises the water which supplies the wells at Tottenham. The fact appears to be that the water

which falls on the sand where it is superficial (from Hungerford to within some distance of Tottenham), together with that which passes into it from the chalk, percolates the stratum of sand underlying the clay ; hence when an opening is made through the clay, the water rises nearly or quite to the surface, on the principle of seeking its level—the level of the sand at the foot of the chalk hills, and of the clay at Tottenham being nearly the same (see Geological Map). The sand lies in a hollow in the chalk and the clay in a hollow in the sand. That both have been deposited by the sea, there is the most conclusive evidence, indeed sea shells are found in both. In many parts of the parish red clay or loam, fit for bricks and pottery work, is still found—even as in ancient times—reminding us of the old poem of the “Tournament of Tottenham,” where we find that Perkyn the hero, who carried away Tibbe as his bride, was a potter and lived by that trade in Tottenham.

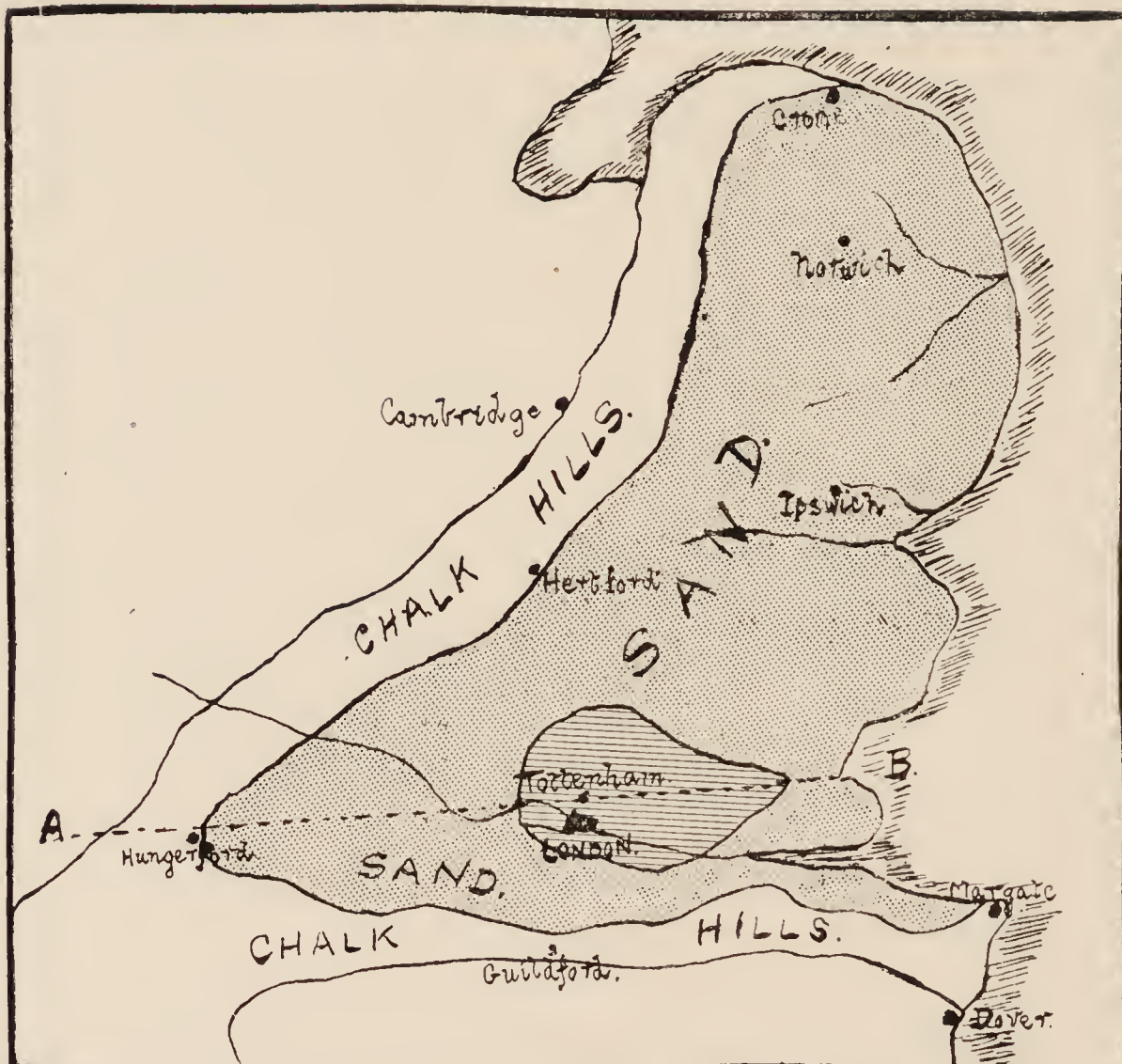
TOTTENHAM WELLS.

In ancient (as in modern) times Tottenham was celebrated for its pure and plentiful supply of well water ; amongst the old wells may be mentioned “St. Loys Well.”

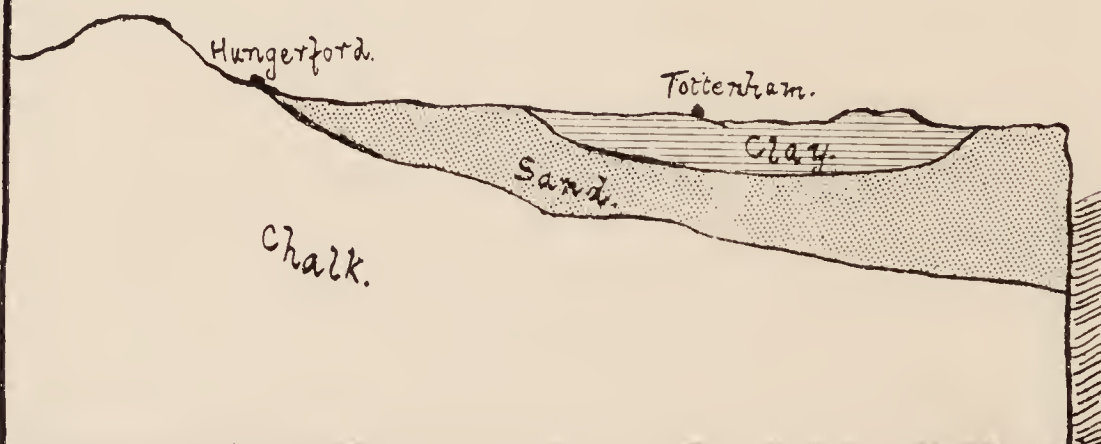
“ —emblem pure,
of chaste unostentatious charity—”

which was situated midway between the High Cross and the Cell of St. Eloy, near what is now known as Bruce Grove; the "Bishops Well" nearly opposite the Vicarage on the South side of the Moselle was also known as "My Lady's Hole," from the fact that the ladies in the vicinity were accustomed to send their servants to procure water from it for their morning and evening tea. Another well was situated in Spottons Wood or Grove on the North side of Lordship Lane, while "Dunstan's Well" in the Tottenham Wood was, in the fifteenth century, esteemed for its medicinal qualities, but "particularly for curing disorders of the eye."

GEOLOGICAL MAP.

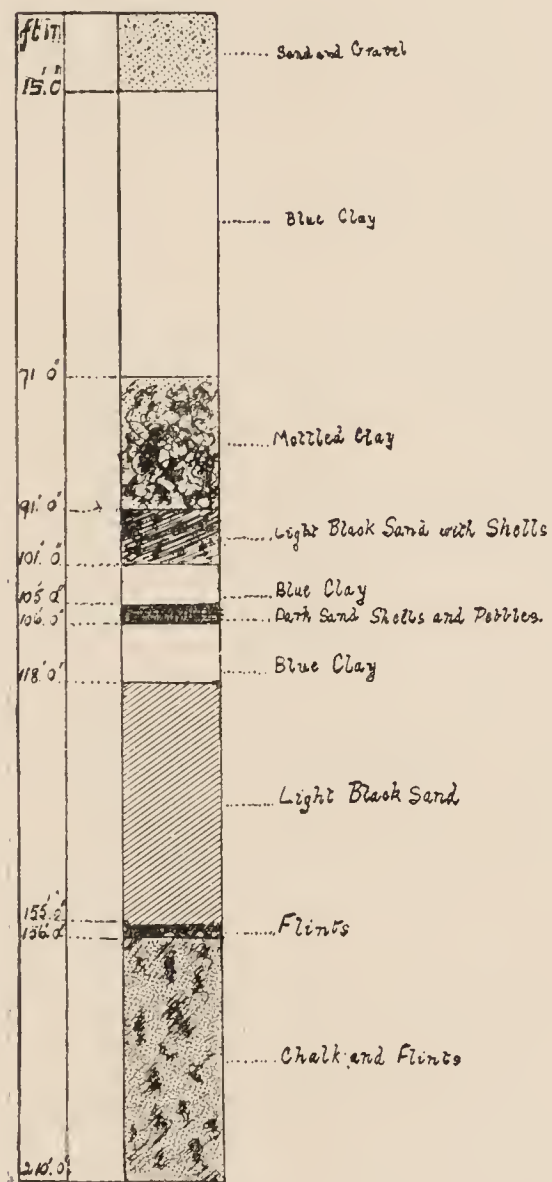


Sketch of the Country surrounding Tottenham.



Section in the direction of the line A.B. of the above Map.

SECTION OF THE HOLT WELL, BORED AT
TOTTENHAM IN THE YEAR OF QUEEN
VICTORIA'S ACCESSION.



DISTRICT STATISTICS.

THE RATEABLE VALUE was £230,557 in 1901, it is now (1903) £478,644, the increase during the past 11 years thus amounting to £248,087.

THE RATES at the commencement of the year were : General District Rate, $2\frac{1}{4}$; Water Rate, 7d.; they are now $2\frac{2}{3}$ and 6d. respectively.

THE POPULATION of Tottenham in April, 1901, was 102,531. At the 1891 Census it was 71,343, showing an increase of 31,188 during the decade.

The estimated population at the middle of 1903 was 117,797. This estimate is arrived at by multiplying the number of houses inhabited in the June of this year by 6·23, which was the average population per house according to the Census of 1901. The Registrar-General's method of estimating the population is based on the assumption that the rate of increase in 1902 and 1903 corresponds to the average rate of increase during the decade 1891-1901. Such an assumption is fairly correct when applied to the Country generally, but is far below the mark in such a quickly growing district as ours. I might add that my method of estimation has been for

many years adopted by Medical Officers of Health generally.

The number of inhabited houses is 18,908, and the number of uninhabited is 1,279. The average population per house varies for different portions of the district, ranging from 5·6 in West Green Ward to 6·9 in St. Ann's Ward.

Area of District in acres	3,013
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	At Census of 1901.	At Midsummer, 1903.
Total population at all ages ...	102,531	117,799
Number of Inhabited Houses	16,441	18,908
Average number of persons per house	6·2	6·23

BIRTHS.

3,476 Births were registered in the year (1,830 males and 1,646 females), giving a birth rate of 29·5 against 30·7 in 1902, and 30·6 in 1901.

The natural increase of population, that is the increase of births over deaths, was 2,208, that of 1902 being 1,964, and that of 1901 being 1,629.

The birth rate for England and Wales for the year was nearly 29·0, *i.e.*, about ·5 below that of Tottenham.

The continued decline in the national Birth Rate is

a subject for serious consideration. If England is to assist in populating its Colonies, if it is to continue to maintain its present proud pre-eminence amongst nations, it must produce a virile and increasing population. This decline is not a matter peculiar to England, but is common to nearly all civilized countries, even to so young a country as the United States of America, where President Roosevelt recently made some very strong comments on the subject. The effect of the declining Birth Rate is, however, to some extent concealed by the still greater decline which has been secured in the death rate. The latter cannot, however, continue to compensate for the lower birth rate. *A lower Birth Rate continued for a series of years means an older population*, that is a population which on the whole must have a higher death rate, other things being equal, than the same population when it was composed of younger persons. A stationary population, like that of France, is contrary to our national interests, and only a limited few will refuse to accept the dictum that the reduction of the birth rate calls for anxious study. Its causes are not far to seek. There has been no corresponding reduction in the marriage rate. The reduced birth rate is caused by a diminished number of children to each marriage, not by a diminished number of marriages. The average age at which



DOWNHILLS PARK.

This Photograph is from a block kindly lent by my colleague, W. H. Prescott, Esq., Engineer to the Council.

marriage takes place has become rather higher, and this has had some slight influence, but it does not explain more than a small fraction of the total reduction in the birth rate; nor is there the slightest reason for believing that the potential fecundity of civilized man is declining. The one chief predominant cause of the lower birth rate is the deliberate prevention of child birth. The public discussion of such a subject is repugnant; it needs, however, to be faced, and all well wishers of the Community should be acquainted with the real state of affairs. Two means of keeping families small are practised (1) the production of abortion, (2) the prevention of conception by artificial means. The former is a criminal offence, and although occasionally practised, is in this country only a minor cause of the reduced birth rate. The practices involved under the second head have been taught in various pamphlets which have received a wide circulation, and it is to these practices chiefly that we owe the serious decline of our national birth rate.

DEATHS.

The number of deaths was 1,268 (635 males and 633 females), against 1,438 in 1902 and 1,550 in 1901.

On the estimated population of 117,797 the 1,268

deaths give an annual mortality rate of 10·7 against 13·4 in 1902 and 14·6 in 1901.

The deaths were distributed according to age, as follows :—

Under 1 year	...	...	...	431
From 1 to 5 years	...	...	...	196
„ 5 to 15	„	...	...	61
„ 15 to 25	„	...	...	43
„ 25 to 65	„	...	...	314
„ 65 and upwards	...	...	...	223
				<hr/>
				1,268
				<hr/>

The death rate of England and Wales was 15·5, *i.e.*, nearly 5 above this district.

As a matter of comparison, it is interesting to note that 22 Colonial and Foreign Cities, with an aggregate population of 20,000,000, have a death rate of 19·2, that is more than 4 per 1000 above the average rate of the 76 great English Towns.

DEATHS OF CHILDREN.

The number of deaths under 5 years of age was 627, 431 of those belonged to children under 12 months old.

The Infantile mortality was, therefore, a little less

than 124 per 1,000 births, a rate which corresponds almost exactly with that of 1902, but is about 8·5 per 1,000 less than that of 1901.

In another portion of this report, (viz., under the heading “Diarrhœa,”) I have dealt with the chief causes of infantile mortality.

It should be noted that out of 431 deaths of children under 1 year old 58 were those of children prematurely born—an unusual and significant proportion.

DEATHS FROM ZYMOTIC DISEASES.

The total number of deaths from Zymotic Diseases during the year was 171, equivalent to a death rate of 1·4 against 2·1 for 1902, and 3·7 for 1901.

These were distributed as follows :—

Small-pox	...	...	...	...	0
Measles	...	...	...	...	67
Scarlet Fever	...	...	...	...	4
Diphtheria	}	...	...	}	16
Membranous Croup					
Whooping Cough	...	...	...	...	50
Enteric Fever, Typhoid & Ill-defined					9
Diarrhœa	...	...	...	...	22
Continued Fever	...	...	...	...	—
Puerperal Fever	...	...	...	...	2 (St. Ann's)
Erysipelas	...	...	...	...	1 (High Cross)
					<hr/> 171 <hr/>

N.B.—This includes deaths of all “residents” occurring at Public Institutions in Tottenham.

The total number of cases *notified* was as follows :—

Small-pox ...	...	...	...	4
Diphtheria ...	...	...	...	136
Membranous Croup	...	...	...	4
Erysipelas ...	...	...	...	66
Scarlet Fever	...	...	.	343
Enteric Fever	...	...	...	66
Puerperal Fever	...	...	...	3
Chicken Pox	...	...	...	104
				<hr/>
Total				726
				<hr/>

N.B.—The above figures include 33 cases of dual notification and 7 cases incorrectly diagnosed as “infectious.” The 33 cases notified twice were distributed amongst the notifiable diseases, as follows :—Scarlet Fever 11, Chicken Pox 9, Typhoid Fever 6, Diphtheria 5, Small Pox 1, Erysipelas 1.

SMALL POX.

Three cases of this disease occurred during the year ; all 3 were adult patients and had been vaccinated in childhood, the disease was consequently much modified,

and one case was of a very mild type indeed ; there was no death.

I have discussed the question of Small Pox so fully in the special pamphlet issued last year that I feel it is now only necessary to remind you of the importance of having children re-vaccinated about the period when their elementary school life closes and before they attempt to earn a livelihood on their own account.

I estimate that in Tottenham the proportion of unvaccinated persons to the total population is only about $\frac{1}{5}$ of what it was in 1901. I have in numerous instances succeeded in overcoming the prejudices of objectors by a little gentle persuasion, and have been allowed to vaccinate children in many houses where the Public Vaccinator had been treated with very scant courtesy. The mistake so often made is to mete out to such persons a dose of "high and mighty" contempt, forgetting that in some instances the bitterness of their opposition is due to the shadow cast over their whole lives by the loss of a little child whose death has been rightly or wrongly attributed to septic lymph or instruments. After all it is little wonder if such parents—who have only had the chance of studying the vaccination question from one sorrowful standpoint—cannot recognise as a public good what has been to them a personal evil.

I trust the Tottenham Council will not fail to avail itself of the opportunity—now offered by the Middlesex District Councils' Association—of providing permanent accommodation for the treatment of its Small Pox cases, though it is a consummation devoutly to be wished that this country should render all such measures unnecessary by following the example of Germany in eradicating the disease by insisting on the compulsory adoption of effective preventive measures.

SCARLET FEVER.

There were only 4 deaths from Scarlet Fever (against 12 in 1902 and 6 in 1901), giving a Death Rate of 0·034 per 1,000 of the population; in London the late s recorded Death Rate was 0·12, in the 76 great Towns 0·19, and in the 103 other large Towns 0·14.

The remarkable reduction during recent years in the Death Rate from Scarlet Fever throughout the country is doubtless due 1st to improved sanitation, and 2nd to the now largely adopted system of proper Hospital isolation. Personal contact with an infected person is the chief factor in the propagation of the disease, hence the frequency with which it is disseminated through the agency of elementary schools, as many mild cases necessarily escape the notice of lay observers; I have on

several occasions found children in the desquamative stage of Scarlet Fever attending the schools in my former district, Leyton; one such case is sufficient to start an epidemic. Three weeks should elapse after recovery or removal before any children from the house in which a case of Scarlet Fever occurs should be allowed to resume attendance at school.

DIPHTHERIA AND MEMBRANOUS CROUP.

The deaths from Diphtheria and Membranous Croup numbered 16, as compared with 35 in 1902 and 89 in 1901; the Death Rate is therefore 0·13 per 1000 inhabitants; the latest recorded London Rate being 0·25, that of the 76 great Towns 0·26, and of the 103 other large Towns 0·24 per 1000.

The Death Rate from Diphtheria and Membranous Croup, like that from Scarlet Fever, has much decreased recently throughout the Kingdom, the causes of this diminution being practically similar in both diseases; as to Diphtheria, however, the use of Anti-Diphtheritic Serum must be added to the beneficent factors which, combined, have produced such satisfactory results. In cases of this disease children should not be allowed to resume attendance at school before the lapse of a fortnight from the recovery or removal of an infectious case.

PUERPERAL FEVER.

Three cases of this disease were notified, 2 of which had a fatal termination. The infectivity of lying in fever is so marked, and its fatality so great, that in every case careful enquiries were made as to the sanitary condition of the house and the probable source of infection ; the nurse in attendance was instructed how to act, and was advised not to attend on other cases for 4 weeks and to have her clothing duly disinfected at our station.

ENTERIC FEVER.

Nine deaths were due to Enteric Fever, against 15 in 1902 and 29 in 1901 ; this gives a Death Rate of 0·076 per 1000 of the population, only a little more than half the London Rate and almost exactly half the average Rate for the 76 great Towns. The attack Rate was 0·50 per 1000, that of the County of London being 0·73 per 1000 and that of the 76 great Towns being 0·75 per 1000.

In 2 cases I elicited the information that shell fish (Oysters and Cockles) had been partaken of at Southend and Margate respectively, on a date corresponding exactly with the period of incubation in this disease. In another

instance, I fear, the failure of the medical attendant (who does not reside in Tottenham) to diagnose Enteric Fever was the cause of at least one death and of the spread of the disease to three other persons. Those facts emphasize the awful burthen of responsibility thrown upon the shoulders of medical men in such cases. Cases of Typhoid removed to Hospital almost invariably progress more satisfactorily than those remaining at home, the difference in fatality amounting to as much as 2 per cent. for the country generally.

During May I was fortunate enough to be able to seize some "South African" blankets in a Gipsy Van, belonging to Geo. Graham, temporarily located at Down Lane. I made a bacteriological examination and found Typhoid bacilli present in one instance; the blankets were accordingly destroyed by my directions and the van disinfected. In further connection with the same subject I directed a general inspection of the Common Lodging Houses and other suspected premises in the District, with however a negative result.

DIARRHŒA.

The deaths from Diarrhœa were 22 against 30 in 1902, and 110 in 1901; the death rate was accordingly 0·18

per 1000, the Death Rate of England and Wales being 0·38, that of Rural England 0·22, that of London 0·35, that of the 76 great Towns 0·54, that of Liverpool 0·94, Leeds 0·60, and Manchester 0·53.

It is highly satisfactory—especially considering the working class character of the population—to find our rate so comparatively favourable, for there is no disease the absence or presence of which points so unerringly to the existence of sanitary or insanitary conditions in a district. There is little doubt that climatic conditions—viz., the lower temperature and abnormal rainfall from June to October—contributed materially to the decreased death rate from Diarrhœa throughout the kingdom generally; thus the temperature during the Summer months was considerably less than that registered for the corresponding period in 1902, whilst the latter in its turn was even more considerably less than the Summer temperature of 1901. The *ground* temperatures (for July, August and September)—which affect Diarrhœa returns even more than *air* temperatures—were also invariably less than those for the corresponding months of the two previous years.

Apart from meteorological conditions, there are, however, four other causes influencing infantile mortality—(1)

insanitation (2) the ignorance of parents (3) artificial feeding (4) the early marriage of immature boys and girls. It is unfortunately a fact that children under 5 years of age die two or three times as fast in our large centres of population as in rural districts and small towns ; in other words, upwards of 1,500 children die annually in the County of Middlesex whose lives could be and ought to be saved ; not only could these lives be preserved, but the measures taken to strengthen the weak would tend to make others stronger, they would become from the outset better able to fight the battle of life, and increased physical strength would invariably produce corresponding increase in mental and moral vigour, and a general all-round improvement.

“ Oh yet we trust that somehow good
Will be the final goal of ill.”

If the future learns from the bitter lesson of the past, even this annual “slaughter of innocents” will not have been wholly in vain.

PHTHISIS.

The deaths from consumption only amounted to 57, against 87 in 1902, and 90 in 1901. The phthisical death rate is therefore 0·48 per 100, that is about one-third of the rate for England and Wales ; on page 101 will be found the corresponding rate for several typical towns.

The returns for Tottenham are eminently encouraging and satisfactory, but too much attention cannot be focussed on the fact that the disease is communicated from one to another by means of sputa, that dust is a potent factor in its spread, that occupation and personal habits have an important bearing on its propagation, and that foods like milk and meat are not without their influence. Contrary to the general preconceived notion, heredity plays only a small part in the causation of phthisis, in fact, Von Behring is of opinion that it is practically nil; this Professor (whose pupil I had the honour of being for a short period) is moreover convinced that "the milk which the infant imbibes is the principal source of phthisis." (Von Behring's "Fight against Tuberculosis" addressed to the Société de Médecine Interne, Vienna, May, 1903.) He holds that in the fight against tuberculosis in man it is necessary to grasp the spirit of what has been done with bovine tuberculosis, not only because the "tubercular virus arising from bovine animals plays an important part in the pathogenesis of human tuberculosis," but also because the results obtained by the anti-tuberculous vaccination of calves allows us to anticipate the possibility of immunizing man himself against tuberculosis either by the inoculation of living attenuated bacilli or by means of

“anti-bodies,” Von Behring being convinced that in the milk yielded by cows vaccinated against tuberculosis, there are present some immunizing substances.

I have for very many years advocated the *compulsory* notification of this disease, and I am glad to find that the belief in the advisability of such a measure is steadily spreading in the ranks of Medical Officers of Health. Several authorities have already adopted *voluntary* notification, and are moreover promoting the erection of Sanatoria for the treatment of consumption, either by building such places themselves or subsidising institutions which have already been built or are in the course of construction. I need only mention as instances, amongst the towns, Bradford, Brighton, Bristol, Leeds, Liverpool, Sheffield, Sunderland, and Manchester. The following counties have also taken action in the matter, viz., Cheshire, Cornwall, Devon, Durham, Wilts, Somerset, Gloucester, Worcester, York (East and West Ridings), Westmoreland, and Nottingham, and last, but not least I am glad to recognise that Middlesex, though slow to be roused, now seems determined to accomplish similar good work.

The deaths from this disease occur at the period when life is of the greatest pecuniary value, and also

most precious in the family circle, yet while hundreds of thousands of pounds are being annually spent in this country on the prevention and cure of such diseases as scarlet fever and diphtheria, there has been hitherto no great national attempt to check the course of a disease so essentially preventable as consumption. It is advisable that Health Authorities should be notified of the existence of all cases in which the expectoration contains the tubercle bacillus, the object being, as Koch puts it, "to learn where help and *instruction* can be given, and especially where the disinfection, which is so urgently necessary when consumptives die or change their residence, has to be effected."

The chief objects attainable by notification are these :—(1) It would afford an opportunity of instructing the patients and the householders, especially those living in tenement dwellings and lodging houses, both orally and by printed matter, as to the precautions that are essential to prevent the spread of the disease, and particularly the destruction of the sputum as it is discharged. (2) It would afford an opportunity of carrying out such measures of disinfection as are necessary to remove infected matter both from the house itself and from the bedding and personal clothing of the patient. (3) It would afford an opportunity of inspecting the house and discovering

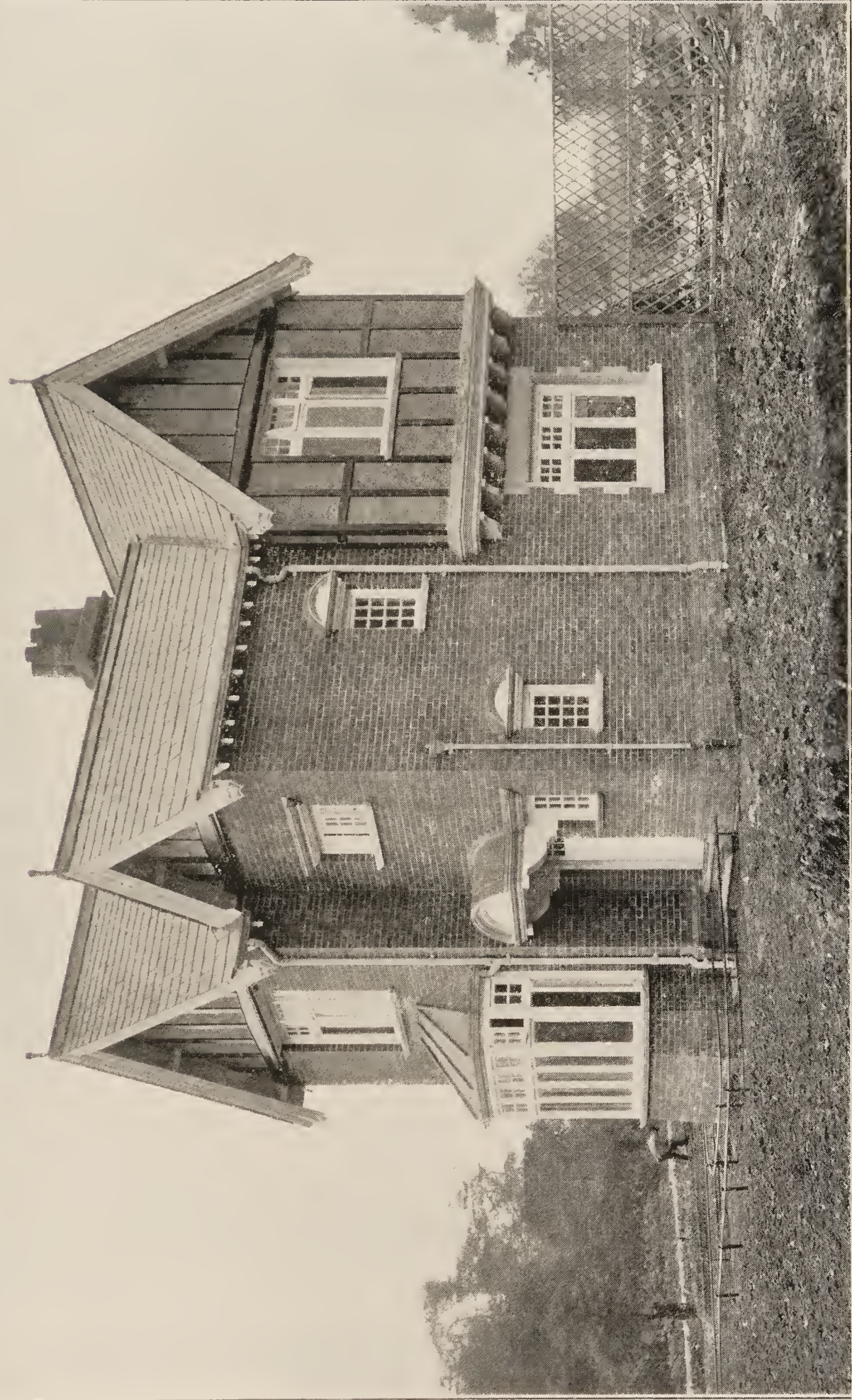
whether the rooms are overcrowded or dirty or insufficiently ventilated. (4) It would afford an opportunity of making observations on consumptive patients so as to ensure that they continue to take precautionary measures. (5) It would afford an opportunity of enquiring into the possible source of the infection. (6) It would enable information to be gleaned as to the conditions under which the patient worked, which is a most important matter, because ill ventilated workshops have been some of the most fruitful sources of this disease ; moreover it would enable special attention to be drawn to the dangerous habit of spitting, which is so common in these places. A man engaged in the corset making trade in a Factory at Homerton recently died from Phthisis in this district ; on enquiry I found that 7 deaths from Consumption had occurred amongst the hands of this particular Factory during a period of twelve months I immediately sent the details elicited to the Medical Officer of Health for the district in question, who found the Factory "dark, damp and ill ventilated." (7) It would afford an opportunity of obtaining information as to the part different occupations and trades play in the distribution of this disease. The great national decrease which has taken place in the mortality from phthisis during the past 40 years has been due mainly to :—(1)

Improved drainage, (2) the abatement of overcrowding, (3) the improvement that has taken place in the conditions under which the labouring classes live, (4) better and more wholesome food.

The mortality amongst *young children* is now only one-third of what it was 40 years ago, while at *all ages* it is only three-fifths of what it then was, and this though the improved sanitary measures were mainly directed against other diseases than phthisis. My own experience coincides with that of Dr. Bigg, of the New York Board of Health, as to tuberculous dust derived from sputum being a most potent factor in the propagation of phthisis ; he has found that adjoining houses tend to become infected with tuberculosis in so marked a manner as to strongly suggest that one house becomes infected from another ; with his remarks on that point also I cordially agree.

In several towns in which the voluntary notification of consumption has been adopted, the Sanitary Authorities supply the poorer patients with cardboard spittoons, which are immediately burnt when used.

In this connection, I should like to draw your special attention to the utterance of Professor Brouardel, the distinguished representative of the French Government to the British Conference on tuberculosis. He



SUPERINTENDENT'S HOUSE, DOWNHILLS PARK.

This Photograph is from a block kindly lent by my colleague, W. H. Prescott, Esq., Engineer to the Council.

says: "The danger is in the sputum, which contains thousands of consumptive germs. To expectorate on the street, or other public place, is a disgusting and dangerous habit. *When this habit has quite disappeared, tuberculosis will disappear rapidly.*"

Various cities of the United States forbid spitting in public places under heavy penalties, and that the regulation is not a dead letter is proved by the fact that a New York millionaire was recently fined five hundred dollars for having disregarded the provisions of the law in this respect. Canada, New South Wales, Germany, Austria, Belgium, Denmark, France, and Hungary all have enactments of a similar kind, and even England is beginning to recognise the danger which this filthy habit entails. London, Liverpool, Manchester, and Glasgow have bye-laws against spitting in tramcars and tramway stations, and Glamorganshire has enacted a bye-law against spitting on the 'side, floor, or wall of any public carriage, public hall, public waiting room, or place of public entertainment;' on the whole, however, these laudable provisions have so far not been properly enforced in this country.

You will understand from the above observations the danger of being served by tradesmen, who either suffer from the disease themselves, or employ servants so

suffering ; indeed it is most important that all men and women holding public situations should be free from the consumptive taint. I have been long of the opinion that “ the stooping posture ” and “ imperfect breathing ” are material factors in “ catching ” this disease ; care should be taken to teach children that the lungs should be emptied as completely as possible on expiration and filled with corresponding completeness on inspiration. Holding the head erect and the shoulders squared should be two of the most important axioms in all systems of physical training ; I shall now mention a third, the necessity that children should be trained to breath through their noses and not through their mouths ; the injurious influence of the latter practice is very great, and teachers should remember that not only is nose breathing of importance in singing and elocution, but also in the prevention of phthisis, diphtheria, broncho-pneumonia, and other diseases too numerous to mention.

The fourth and last point that I wish to mention in this connection is the necessity for teaching children, and particularly the girls of the upper standards, the importance of rearing children—who for any reason can not be suckled—on sterilized milk. I trust that before the summer of 1904 arrives some of the gentlemen who are engaged in the milk industry in your district may

materially help us by providing sterilized humanized milk at a reasonable price for infant feeding. The havoc of the infantile mortality from "consumption of the bowels" and "summer diarrhœa" would thus be largely prevented. In Battersea, St. Helen's, and Liverpool there are Municipal Milk Depôts where milk is humanized and sterilized under the superintendence of the Medical Officer of Health.

* * * * *

Some valuable details regarding the infectivity of Phthisis were published about a year ago by Dr. Niven, the Medical Officer of Health for Manchester ; out of 1339 cases he found that in 220 the probable source of infection was a deceased relative.

* * * * *

EPIDEMIC INFLUENZA.

Seven deaths were certified from this disease during the past year, against 20 in 1902 and 19 in 1901 ; the death rate was accordingly the very low one of .059 per 1000 of the population.

CANCER.

The number of deaths attributed to this disease amounted to 144, against 42 in 1902 and 80 in 1901 ; the death rate was accordingly .37 per 1000 of the population, that is, a little less than half of the death rate from this disease for England and Wales. The steady

increase of the deaths from this disease in England deserves serious consideration, and particularly the fact that malignant disease is more frequent among women than men. It is undoubtedly due to the special tendency of the disease to attack the female mammary glands. The pressure of corsets is a frequent cause of mammary cancer, and the obstruction thereby caused in the portal circulation may tend to the formation of gall stones, the casual significance of which in the development of malignant tumours is now generally recognised. As examples of the fact that the mechanical and chemical injuries connected with certain occupations create a pre-disposition to the disease, the prevalence of chimney sweepers' cancer and tar cancer (among workers of tar and paraffin industries) may be instanced. Nearly every form of benign tissue hyperplasia if exposed to constant irritation passes over into cancer, though the exact time when the change begins cannot be fixed upon. Scars are a favourable soil for malignant tumours, as are also warts, according to Rappock, who found that out of 399 cases of cancer of the skin, 182 arose from them. For these reasons Prof. Hoffa and Dr. Lillienfeld recommend as follows: "We must advise the removal of benign tumours, especially those which show the very least tendency to increased growth or which are situated in

places where they are exposed to irritation. We must warn against the scratching of warts and against cutting them with septic knives, and also are of opinion that sharp pieces of teeth and bad teeth should be immediately removed ; in chronic states of irritation of the mucous membranes we must forbid smoking and chewing tobacco, and above all the abuse of alcohol, which experience has shown us gives rise to carcinoma of the œsophagus and of the stomach.”

MEASLES.

The number of deaths from this disease amounted to 67, against 23 in 1902, and 28 in 1901 ; the death rate per 1000 of the population was .56, which is very considerably less than the rate for the country at large ; but it is nevertheless, in my opinion much greater than it should be for this District, as fatal results are, with due caution, so easily preventable. The fear, which Scarlet Fever and Diphtheria engenders in most people contrasts strangely with the utter disregard shown towards complaints like Measles or Whooping Cough, that are equally infectious and *far more fatal*—familiarity breeds contempt. Measles is very catching for 3 or 4 days before the rash comes out, when the nose and eyes “run,” and the eyes are inflamed, and also for 3 weeks after the rash appears. When the disease is about, all those children

suffering from “cold in the head” should be promptly isolated from others, and carefully watched for the appearance of a dark red, raised and patchy rash, which comes out first on the face. All patients suffering from Measles should be kept in bed until the rash disappears, and isolated for 3 weeks from the family, no children being allowed to attend either Day or Sunday School during that time.

As measles is often very like Scarlet Fever, and sometimes like Small Pox, (both of which, under a heavy penalty, must be notified to the Medical Officer of Health,) a medical man should be called in in all cases of this disease.

WHOOPIING COUGH.

The deaths from this disorder amounted to 50, against 37 in 1902, and 54 in 1901; the death rate was .42 per 1000 of the population—a rate almost similar to that of the 76 great Towns and London generally, though considerably lower than that of several of the adjoining London Districts. I must again emphasise the importance of proper medical attendance in the early stages of this disease, the want of which is mainly responsible for its large death rate. *Measles and Whooping Cough are*

two of the most fatal diseases to children ; most deaths may be prevented by taking care, and especially by seeing that children do not take cold when suffering or recovering from those diseases. Whooping Cough is very infectious, and remains so for 6 weeks at least, and until the “whoop” disappears ; it usually begins like an ordinary feverish cold ; in a few days the child gets fits of severe coughing, some of those fits being followed by vomiting and “whooping.” In this disease no children should attend school (either day or Sunday) from the house affected, until the “whoops” have finally disappeared. The patient should be kept by himself in a warm well-ventilated room (stripped of carpets and surplus furniture). Remember the patient wants both pure air and warmth ; the air of a dirty stuffy room poisons the lungs and is more dangerous than colds or even draughts. To prevent the disease spreading to other houses, forbid your house to all, and let nobody from your house go visiting elsewhere. The discharge from the nose and throat should be received in rags which should be immediately burnt ; all removed bedding should be steeped in boiling water, and special eating utensils should be used ; when the last case is free from infection, everything in the sick room should be washed with soap and hot water, and as far as possible placed in the sun

and air for a day ; I should also be very glad to order special disinfection of such rooms when so requested, but should this not be decided upon, the wall papers should be rubbed down with common dough, which should then be burnt, and the windows kept wide open for 2 or 3 days. Special care should be taken that the sick child's clothes are all washed before he (or she) leaves the room and returns to school. It should be remembered that "any person who, while suffering from infectious disease, goes out in a public place, or allows anyone in his charge so suffering to go out, or takes infected clothes or bedding into a public place, renders himself liable to a heavy penalty"

ALCOHOLISM.

Sixteen deaths were notified as being *directly* due to alcohol, against 18 for 1902 and 24 for 1901 ; the death rate per 1000 of the population was accordingly 15. I am convinced, however, that the small number of deaths attributed to the excessive use of alcohol does not represent a hundredth part of the deaths for which it is *indirectly* responsible. I regret to say that in this disease as in Measles, Whooping Cough, Diarrhœa, Typhoid, Pneumonia, Bronchitis, Phthisis and other Tubercular Diseases, St. Ann's Ward heads the Death

Rate, although alcoholism should have no special connection either with defective housing or density of population.

VIOLENT DEATHS.

Different forms of violence caused 41 deaths; of those 28 were due to accident, 12 to suicide, and 1 to murder. In 1902 there were 44 violent deaths, 38 being due to accident, 5 to suicide, and 1 to murder; while in 1901 similar causes accounted for 56 deaths, 55 of which were accidental and 1 suicidal.

CHICKEN POX.

There was no death from this disease.

ANKYLOSTOMIASIS.

This disease has recently made its appearance in England, but as far as I am aware no case—and certainly no death—has occurred in Tottenham. The disease is due to the presence of a nematode worm in the small intestines (particularly the Jejunum). The worm attaches itself to the mucous membrane, from the blood of which it obtains a plentiful supply of nourishment; its shape is cylindrical and its colour white in the ordinary condition when alive, reddish brown when full of blood, and grey when dead. Its presence in the human system leads to progressive anæmia or bloodlessness. Outbreaks of the disease are

generally associated with mining operations (as in the Cornwall and St. Gothard outbreaks). The treatment is similar to that for tape worm, and Medical Officers of Health have been recently warned to look out for the presence of this disease in their districts.

* * * * *

TABLE No. 12.

*Comparative Statement of the Number of Houses in Tottenham for
4 Triennial Periods at intervals of 10 years.*

	1881	1882	1883	1891	1892	1893	1901	1902	1903
No. of houses in Tottenham	9572	10956	12538	13030	13417	12862	17679	18561	20187
Do. Occupied	8056	9772	10965	12118	12412	12890	16411	17341	18908
Do. Unoccupied	1386	1184	1573	912	1005	972	1238	1310	1279
Do. built during yr.	1035	1384	1582	506	377	445	972	712	1736
Percentage of houses unoccupied	14·4	10·8	12·5	7·0	7·4	7·0	7·0	7·0	6·3

*Comparative Statement of areas, houses, population and death rate,
in Wards.*

Ward.	Area in Acres.	Total No. Houses.	Inhabited Houses.	Empty Houses.	Estimated Population.	No. per Acre.	Average per House.
Harringay ...	265	3319	3109	210	19275	72·73	6·2
West Green ...	470	2341	2193	148	12281	26·13	5·6
St. Ann's ...	244	3850	3606	244	24881	101·97	6·9
High Cross ...	458	3491	3270	221	22327	48·74	6·8
Middle ...	638	3818	3576	242	20740	32·50	6·0
Lower ...	948	3368	3154	214	18293	19·29	5·9
Total ...	3013	20187	18908	1279	117797		

TABLE I.—

Table showing the Population, Birth Rate, and Death Rate from all causes, in Tottenham, during the last ten years.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		Deaths under One Year of Age		Deaths of all Ages.		Deaths in Public Institu- tions.	Deaths of Non- Residents registered in District. 10	Deaths of Residents registered beyond District. 11	Deaths at all Ages. Nett.	
		Number.	Rate.*	Number.	Rate per 1000 Births registered. 6	Number.	Rate.*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1893	75,000	2580	34.4	379	146.8	1429	19.0	243	184	...	1245	16.6
1894	75,000	2437	32.5	337	138.5	1176	15.6	203	164	...	1012	13.4
1895	73,258	2602	33.3	371	137.5	1297	16.5	158	145	...	1152	14.7
1896	83,790	2513	29.4	377	151.9	1227	14.6	103	99	...	1128	13.4
1897	87,180	2643	30.3	430	162.8	1314	15.0	115	110	...	1204	13.8
1898	91,692	2707	29.5	465	171.7	1209	14.2	90	83	...	1126	12.2
1899	96,498	2925	30.3	478	163.4	1466	15.1	82	81	...	1385	14.4
1900	98,268	2964	30.1	501	169.0	1527	15.5	116	82	...	1445	14.7
1901	103,243	3179	30.0	431	135.5	1550	15.0	274	40	..	1510	14.6
1902	107,003	3397	31.7	421	123.6	1656	15.5	318	223	5	1438	13.4
Averages for years 1893-1902.	89,593	2794	31.1	419	150.0	1385	15.6	170	121	...	1260	14.1
1903	117,797	3476	29.5	431	123.9	1430	12.1	230	162	...	1268	10.7

* Rates calculated per 1,000 of estimated population.

NOTES TO (L.G.B.) TABLE I.

The gross rate includes deaths of persons belonging to other Districts which take place in Public Institutions (Tottenham Hospital, M.A B. Hospital, &c.)

The nett rate is the true one as it represents the deaths of all Tottenham people whether they take place within or without the Parish, and is the rate adopted by the Registrar General, non-residents being always allocated to the district to which they belong.

By the term "Non-Resident," is meant persons brought into the District on account of illness, and dying there; and by the term "Resident" is meant persons who have been taken out of the District on account of illness, and have died elsewhere.

1.	2.	3.
Institutions within the District receiving sick and infirm persons from outside the District.	Institution outside the District receiving sick and infirm persons from the District.	Other Institutions, the deaths in which have been distributed among the several localities in the District.
Jewish Home for Incurables	South Mimms Small-pox Hospital	Tottenham General Hospital
Tottenham General Hospital	Edmonton Union	South Mimms Small-pox Hospital.
M.A.B. Hospital (N.E.)	M.A.B. Hospitals (other than N.E.)	

TABLE IV.

TABLE OF DEATHS during the Year 1903 in the Tottenham Urban Sanitary District, classified according to Diseases, Ages, and Localities.

CAUSES OF DEATH.	Deaths in or belonging to whole Districts at subjoined Ages.							Deaths in or belonging to Localities (at all ages).						Total Deaths in Public Institutions in the District
	All Ages.	Under 1 year.	1 and under 3.	5 and under 15.	15 and under 25.	25 and under 65	65 and upwards.	Harringay.	W. Green.	St. Ann's.	H. Cross.	Middle.	Lower.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	67	13	44	10	...	...	...	9	4	20	9	12	13	2
Scarlet-fever	4	...	2	2	...	...	...	...	...	1	1	1	1	44
Whooping-cough	50	22	25	3	..	...	...	6	6	18	7	5	8	5
Diphtheria and Membranous Group	16	...	8	7	...	1	...	4	...	5	2	2	3	34
Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever { Typhus Enteric Other continued	...	..	...	...	...	...	...	...	...	...	...	...	...	..
	9	...	...	5	...	3	1	2	...	4	...	2	1	12

Epidemic Influenza	7	2	...	...	...	4	1	1	2	2	..	1	1	..
Cholera	...	...	...	...	...	...	...	...	...	...	..	...	...	...
Plague...	...	...	...	...	...	...	...	...	...	...	..	...	...	...
Diarrhoea (see notes following)	22	21	1	...	...	...	...	3	1	9	3	3	3	1
Enteritis (see notes)	34	27	3	1	...	3	...	1	3	9	9	3	9	...
Puerperal Fever (see notes)	2	...	...	..	1	1	...	...	...	2	...	...	...	...
Erysipelas	1	...	...	..	...	1	...	...	...	...	1	...	...	...

TABLE OF DEATHS—Continued.

CAUSES OF DEATH.	Deaths in or belonging to whole Districts at subjoined Ages.							Deaths in or belonging to Localities (at all ages).						Total Deaths in Public Institutions in the District
	All Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Harringay.	W. Green.	St. Ann's.	H. Cross.	Middle.	Lower.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Other Septic Diseases	...	...	...	...	...	...	...	...	...	...	1	1	...	1
Phthisis	57	2	...	2	12	38	3	7	4	14	10	13	9	3
Other Tubercular Diseases	71	23	23	5	4	16	...	7	7	28	6	12	11	16
Cancer, malignant disease	44	...	...	...	...	31	13	14	3	9	4	5	9	8
Bronchitis	71	23	6	1	...	20	21	7	8	24	11	14	7	2
Pneumonia	107	35	33	3	2	23	11	6	15	30	13	16	27	15
Pleurisy	1	...	...	...	...	...	1	...	...	...	...	...	1	...
Other diseases of Respiratory Organs	11	3	4	2	...	2	...	1	...	3	...	4	3	1
Alcoholism, Cirrhosis of Liver	16	...	...	...	2	13	1	4	1	5	3	2	1	1
Venereal Diseases	8	6	1	...	1	...	...	3	2	2	...	...	1	...
Premature Birth	58	58	...	...	...	...	...	8	10	20	3	8	9	1
Diseases and Accidents of Parturition	6	1	...	...	1	4	...	1	...	2	1	2	...	1
Heart Diseases	101	9	4	1	6	42	39	14	12	21	14	16	24	17
Accidents	28	11	5	2	2	5	3	6	1	13	1	5	2	9
Suicides	12	...	...	...	1	10	1	3	1	3	2	...	3	2
Murder	1	1	...	...	...	...	...	1	...	...	...	...	...	...
All other causes	462	174	36	16	11	97	28	58	34	102	89	97	82	54
All causes	1268	431	196	61	43	314	223	166	114	346	190	224	228	230

NOTES TO (L G.B) TABLE IV.

(a) In this Table all deaths of "Residents" occurring in public institutions, whether within or without the district, are included with the other deaths in the columns for the several age groups (columns 2-8). They are also in columns 9-13, included among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars. Deaths of "Non-Residents" occurring in public institutions in the district are in like manner excluded from columns 2-8 and 9-13 of this Table.

(b) All deaths occurring in public institutions situated within the district, whether of "Residents" or of "Non-Residents," are, in addition to being dealt with as in note (a), entered in the last column of this Table. The total number in this column equals the figures for the year in column 9, Table I.

(c) Under the heading of "Diarrhœa" are included deaths certified as from diarrhœa, alone or in combination with some other cause of ill-defined nature ; and also deaths certified as from

Epidemic enteritis ;

Zymotic enteritis ;

Epidemic diarrhœa. Summer diarrhœa ;

Dysentery and dysenteric diarrhœa ;
Choleraic diarrhœa, cholera nostras
(in the absence of Asiatic cholera).

Deaths from diarrhœa secondary to some other well-defined disease are included under the latter.

Under the heading of “ Enteritis ” are included deaths certified as from Gastro-enteritis, Musco-enteritis, and Gastric-catarrh, excepting in cases where I have found, on enquiry, reason to include such deaths, especially those of infants under the specific term of “ Diarrhœa.”



TOTTENHAM'S NEW REFUSE DESTRUCTOR.

(Goddard, Massey, and Warner's Plant.)



TOTTENHAM SMALL POX HOSPITAL.

(The tents have been taken down.)

TABLE III.—Table of cases of infectious disease coming to the knowledge of the Medical Officer of Health during the year 1903, in the Tottenham Urban Sanitary District, classified according to diseases, ages, and Localities

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.						NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.						
	At all Ages.	At Ages—Years.					1 Harringay.	2 West Green.	3 St. Ann's.	4 High Cross.	5 Middle.	6 Lower.	1 Harringay.	2 West Green.	3 St. Ann's.	4 High Cross.	5 Middle.	6 Lower.	7 Total.
		Under 1.	1 to 5.	5 to 15	15 to 25.	25 to 65.														65 and upwards.
Small-pox ...	3	...	...	...	1	2	...	...	...	2	1	...	...	...	...	...	2	1	3
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria ..	131	1	48	66	9	7	22	12	29	20	28	20	15	3	16	10	16	10	70
Membranous Group }	4	...	3	1	...	...	...	...	1	...	1	2	...	...	1	...	...	...	...
Erysipelas ..	65	1	.	2	8	40	7	3	12	16	14	13	...	...	..	...	...	1	1
Scarlet Fever ..	332	6	81	194	35	16	48	21	100	63	59	41	42	7	74	46	42	20	231
Typhus Fever ...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	..	...	...	.
Enteric Fever ...	60	...	5	25	11	19	6	10	21	9	9	5	4	3	21	6	2	2	38
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	..	...	..	...	..	...	...	...	...	...	..
Puerperal Fever	3	...	...	...	...	3	1	...	1	1	...	...	...	...	...	...	...	...	..
Chicken Pox ...	95	10	46	38	1	...	4	6	16	22	33	14	...	...	...	...	...	...	...
Totals ...:	693	18	183	326	65	87	88	52	180	131	146	96	61	13	112	62	62	34	343

THE SCHOOLS.

Statistics of Attendance for the 4 Weeks ending November 27th, 1903.

PROVIDED SCHOOLS.

School.	Accommo- dation.	On Rolls.	Average Attendance.	Per Centage.	No. new Scholars admitted.	Left.	Refused.	Aver. Att. above Accom. wk. ending Nov. 27th.	Aver. Att. below Accom. wk. ending Nov. 27th.
BOYS									
Coleraine Park	380	448	428	95.9	6	9	3	50	—
Bruce Grove	590	754	700	93.8	15	17	8	112	—
Seven Sisters	500	579	538	93.5	8	10	3	38	—
Page Green	372	435	399	93.4	7	17	—	27	—
Earlsmead	430	482	439	92.8	16	11	—	14	—
Woodlands Park	450	545	502	92.6	3	9	15	47	—
West Green	436	563	518	92.3	1	5	4	83	—
Lancasterian	600	688	617	91.1	14	17	—	32	—
Downhills	520	643	581	90.7	1	5	11	60	—
Stamford Hill	700	819	719	88.5	21	19	2	21	—
GIRLS									
Stamford Hill	500	621	565	92.6	19	19	—	76	—
Coleraine Park	370	423	378	91.9	12	5	—	4	—
West Green	414	523	478	91.0	3	11	2	58	—
Earlsmead	365	438	400	90.9	5	12	—	33	—
Woodlands Park	500	620	559	90.1	2	13	24	58	—
Bruce Grove	430	582	517	89.7	20	24	—	97	—
Page Green	372	371	325	89.5	19	14	—	—	46
Lancasterian	302	368	326	89.5	12	12	7	25	—
Seven Sisters	500	597	525	89.2	9	20	2	21	—
Downhills	420	537	464	86.4	10	21	—	53	—

School.
INFANTS

School.	Accommo- dation.	On Rolls.	Average Attendance	Per Centage.	No new Scholars admitted.	Left.	Refused.	Aver. Att. above Accom. wk. ending Nov. 27th.	Aver. Att. below Accom. wk. ending Nov. 27th.
r'age Green	421	496	439	90.5	23	19	—	30	—
Earlsmcad	330	363	315	88.9	2	12	£	—	19
Seven Sisters	639	749	645	87.8	—	26	11	14	—
West Green	449	538	463	87.5	22	19	—	37	—
Bruce Grove	632	545	461	87.1	13	11	—	—	156
Lancasterian	402	482	404	86.8	15	27	—	6	—
Stamford Hill	505	538	454	86.4	19	22	—	—	46
Downhills	600	678	566	85.4	37	29	—	—	13
Woodlands Park	600	717	591	84.2	21	33	—	25	—
Coleraine Park	402	496	403	83.2	19	13	—	6	—
Page Green (Junior) (Mixed)	409	471	430	91.8	—	17	—	22	—
Deaf and Dumb	30	38	33	89.2	—	—	—	3	—

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School.	Accommo- dation.	On Rolls.	Average Attendance.	Per Centage.	No. new Scholars admitted.	Left.	Refused.	Aver. Att. above Accom. wk. ending Nov. 27th.	Aver. Att. below Accom. wk. ending Nov. 27th.
Boys	4978	5956	5441	92.2	92	119	46	484	—
Girls	4173	5080	4537	90.1	111	151	35	425	46
Infants	4980	5602	4741	86.7	171	211	16	118	234
Mixed	439	509	463	91.6	9	17	—	25	—
TOTAL	14570	17147	15182	89.7	383	498	97	1052	280

NON-PROVIDED SCHOOLS,

School.	Accommo- dation.	On Rolls.	Average Attendance.	Per Centage.	No of New Scholars admitted.	Left.	Refused.	Aver. Att. above Accom. wk. ending Nov. 27th.	Aver. Att. below Accom. wk. ending Nov. 27th.
National School, Park Lane	238	270	248	92.8	7	—	—	12	—
St. Ann's	180	181	159	91.3	19	3	—	—	18
St. Francis de Sales	141	127	104	80.6	2	4	—	—	39
GIRLS									
Green	218	205	183	89.2	4	5	1	—	42
St. Katharine's Practising	159	168	148	88.6	6	3	—	—	11
St. Katharine's Upper Grade	124	160	138	86.7	5	3	—	13	—
St. Paul's	214	244	213	86.5	16	10	3	—	7
Hermitage, St. Ann's	141	167	137	84.0	12	6	—	6	—
St. Francis de Sales	144	133	108	78.2	5	3	—	—	36
Middle Class	147	141	110	74.3	3	—	—	—	37
INFANTS									
Holy Trinity	105	136	114	82.6	—	—	—	7	—
St. Katharine's	160	164	135	81.3	—	8	3	—	26
St. Paul's	131	164	131	78.4	—	10	—	5	—
St. Francis de Sales	124	157	115	70.9	2	2	—	—	8
Hermitage, St. Ann's	130	156	83	70.9	12	12	—	—	31
St. Ignatius	300	377	281	75.9	23	—	—	—	21
MIXED									

52

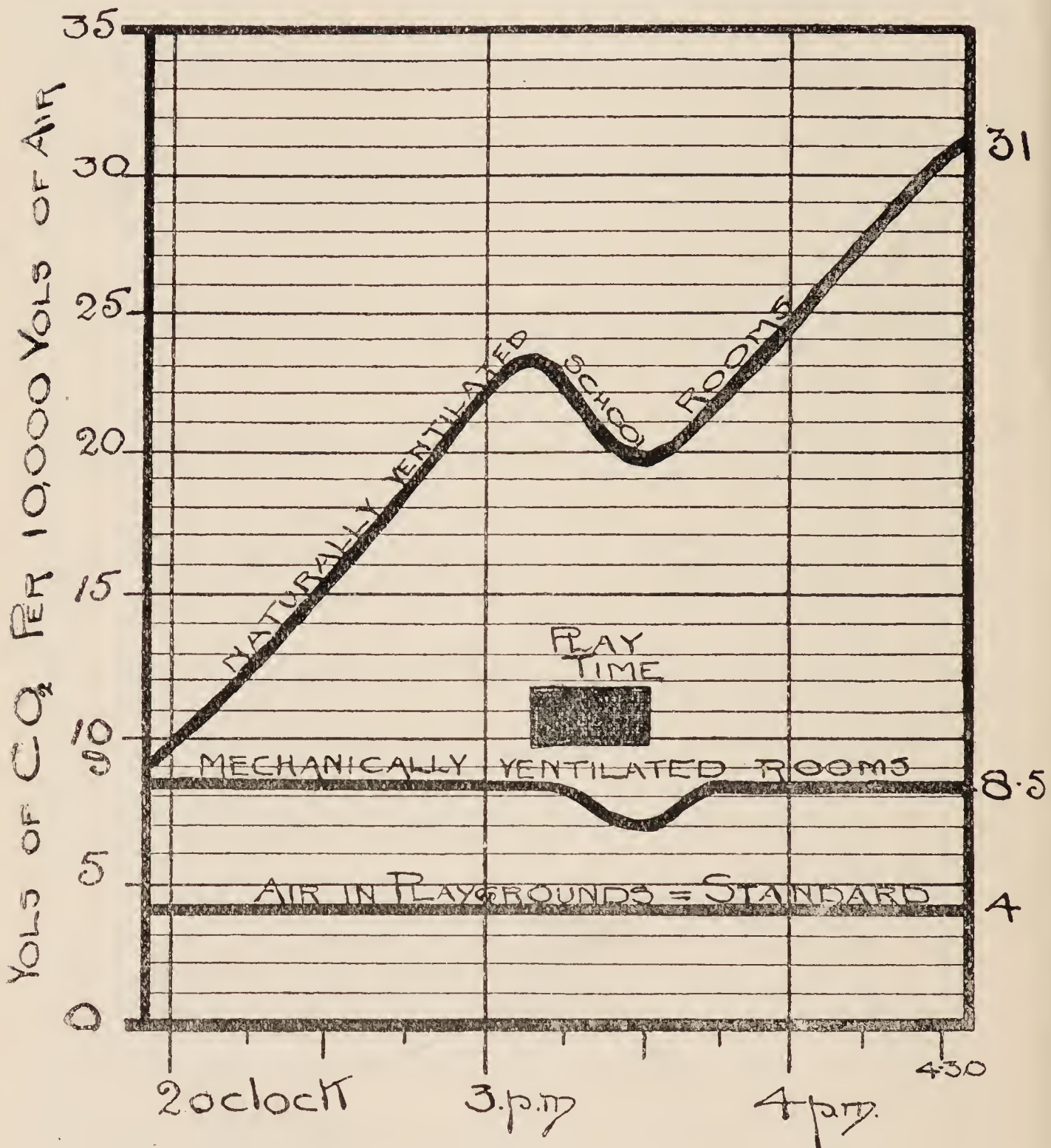
MIXED

School.	Accommo- dation.	On Rolls.	Average Attendance.	Per Centage.	No. of New Scholars admitted	Left.	Refused	Aver. Att.	
								above Accom. wk. ending Nov. 27th.	below Accom. wk. ending Nov. 27th.
Boys	...	...	...	...	...	...	...	12	57
Girls	...	...	...	...	...	...	...	19	133
Infants	...	...	...	...	...	...	...	12	65
Mixed	...	...	...	...	...	...	...	—	21
TOTAL	...	...	...	...	...	...	...	43	276
TOTALS :—									
PROVIDED SCHOOLS	14570	17147	15182	89.7	383	498	97	1052	280
NON-PROVIDED SCHOOLS	2656	2950	2407	82.5	110	69	7	43	276
	17226	20097	17589	88.7	493	567	104	1095	556

**Children Absent from School on account of Infectious Diseases
in their homes (week ending 26th March, a typical week).**

SCHOOL.	Measles	Scarlet Fever.	Typhoid.	Diphtheria.	Mumps.	Whoop.	Cough.	Chicken P.	Other Causes	Total.
Bounds Green ...	7	7	—	—	—	—	—	—	1	15
Bruce Grove ...	52	4	1	6	15	2	2	3	35	118
Coleraine Park ...	1	—	—	5	—	1	1	11	3	31
Downhills ...	56	13	3	—	1	1	1	24	6	104
Earlsinead ...	34	2	—	5	4	19	—	—	10	74
Higher Grade ...	2	—	—	—	—	—	—	—	—	2
Lancasterian ...	13	7	—	—	—	—	—	23	5	48
Noel Park ...	6	12	—	4	—	—	—	—	3	25
Page Green...	56	4	—	2	2	9	—	6	12	91
Seven Sisters ..	62	8	—	1	3	—	—	6	10	90
Stamford Hill ...	14	2	2	1	6	4	4	3	9	41
West Green ...	5	24	—	1	4	—	—	1	2	37
White Hart Lane ...	23	3	—	—	1	1	1	19	3	50
Woodlands Park ...	13	25	1	4	1	12	2	2	5	63
Alexandra ...	3	—	—	—	—	—	—	1	1	5
Gladstone Avenue...	1	2	—	—	—	—	—	2	2	7
TOTAL ...	348	113	7	29	37	49	—	111	107	801

Diagram showing the average results of 97 samples of air taken at a height of 2ft. 6in. from the floor in various class rooms belonging to Schools in Leyton and Tottenham, (August 24th, 1900, to January 1st, 1904.)



N.B.—When the amount of C.O₂. (Carbonic Acid Gas) present exceeds 6 volumes per 10,000, the air is considered impure. On several occasions during last Winter the C.O₂. in the air of the Council Chamber at Coombes Croft House towards the close of the Council Meetings exceeded 23 volumes per 10,000.

From the above statistics it will be seen that there are 20,097 children's names on the rolls of our elementary schools, but there are probably about 5000 other children for whom it is necessary to provide accommodation. Furthermore, most of the schools are at present overcrowded, for example, class-rooms built for 60 have to accommodate from 70 to 80. The cloakroom accommodation is almost universally insufficient, and the same remark applies to the space allowed for urinals. In the Infants' Department of the Woodlands Park School one range of w.c's. is without sufficient flush, and the smell therefrom is in consequence very offensive.

I wish to direct your special attention to the advice given by me under the heading of the various infectious diseases as to the period which should elapse after recovery before a child who has suffered from such disease is allowed to resume attendance at school. I have on one occasion obtained a culture of the Klebs-Löffler bacillus from the naso-pharyngeal discharges of a boy who was supposed to have completely recovered from diphtheria, and who had resumed attendance at school for more than a week. The greatest care should be exercised in allowing children to drink water out of a common vessel, more particularly when there has been a case of diphtheria in the school.

The provisions with regard to lighting are defective, (more especially the artificial lighting), more particularly in the older schools, and as this has a very serious influence not merely on the eyesight, but on the general health of the children, I purpose reporting on the subject to the Education Committee.

WOODLANDS PARK SCHOOLS

The Metropolitan Asylums Board Fever Hospital in St. Ann's Road, is dangerously near the playground of the Infants' Department in Woodlands Park Schools. We have had three cases of scarlet fever within a few weeks in that department, and after careful enquiry I have been unable to trace any other source of infection than this proximity to infectious cases. Information has been conveyed to me that the children on being dismissed from school often congregate round the Hospital gates to watch the arrival and departure of patients. I have accordingly deemed it my duty to advise the teachers of this school to exercise their utmost influence to prevent a recurrence of such conduct.*

PAGE GREEN SCHOOLS.

I wish to draw particular attention to the fact that the drains of the above schools are seriously defective, and though numerous attempts have evidently been made from time to time to remedy their condition, I am of

* I am now endeavouring to get the M.A.B. authorities to move the entrance to their Hospital to a greater distance from the School gate.

opinion that nothing less than the total reconstruction of the drainage system will be satisfactory.

I would suggest that in all the schools where the trough closet system has been adopted and the w.c. seats *fixed*, it would conduce to cleaning the trough more easily and perfectly if the lids were hinged.

I should also like to see an automatic system of flushing w.c.'s adopted throughout the schools, as caretakers cannot always be trusted to carry out their duty in this respect frequently and regularly.

On the 8th September I enquired into the cause of the sudden illness of 27 children in the Girls' Department of these Schools, and found that it was due to partial poisoning by coal gas, the serious leakage of which had occurred during the excavations in Markfield Road. The defect was immediately remedied at my request, and no further ill effects were felt by the children.

STAMFORD HILL SCHOOLS.

The cloak room and urinal accommodation of these schools is particularly insufficient.

WEST GREEN SCHOOLS.

The glaring insufficiency of the cloak room accommodation in these schools is a serious menace to the health of the children. The w.c. drains are also defective, and an untrapped drain exists in the yard.

HERMITAGE SCHOOLS.

The cloak rooms, w.c.'s, and urinals in all three departments are dark and insufficiently ventilated and the playgrounds unpaved.

ST. PAUL'S SCHOOL.

The walls and ceilings of the class-rooms are very dirty, they cannot have been cleansed for several years.

* * * * *

I purpose in the course of the year, and with the sanction of the Education Committee, delivering a few lectures on the "Preservation of Health" to the children of the upper standards throughout the Schools; addresses of this kind may perhaps also have some beneficial effect upon that minority of teachers—which I noticed in the course of my visits to the schools—has such an objection to keeping the windows open.

I have dwelt at such length on school matters because I feel that proper provision for the physical and mental welfare of the children is fraught with infinite possibilities for the future of the race.

COMPARISON OF THE HEALTH OF THE DIFFERENT WARDS.

It will be seen from the Ward Table that St. Ann's Ward still maintains its unfortunate pre-eminence in

deaths from Phthisis and other tubercular diseases, Enteric, Diarrhœa, Whooping Cough, Measles, Diphtheria, Premature Births, Pneumonia and Bronchitis. The average number of persons per house in the St. Ann's Ward is 6·9, which is higher than the average for any other Ward. Whilst, however, St. Ann's is still the least healthy Ward in Tottenham, its general and zymotic death rates have improved very considerably during the past two years, the general death rate for the Ward being now nearly 50 per cent. less than what it was two years ago, while its death rate from infectious diseases does not amount to half of that recorded for 1901. On the other hand the West Green Ward, which has the lowest average house population in the district (viz., 5·6), is the healthiest Ward in Tottenham, having the lowest comparative Ward death rate for Measles, Diarrhœa, Consumption, Cancer, Heart Disease and Bronchitis; not one death occurred in this Ward during the year from Scarlet Fever or Typhoid. The other four Wards hold intermediate sanitary positions, the Middle Ward having the lowest number of deaths from Whooping Cough, it also enjoys the distinction of being the only Ward in which no suicide occurred during the last twelve months. The Lower Ward shares with Harringay in the honour of

having only one death from Influenza, whilst the High Cross Ward had none at all.

There was no death from typhoid in either the West Green or High Cross Ward, and only one in the Lower Ward, the latter ward, too, had only one death from scarlet fever and one from alcoholism. The High Cross and Middle Wards have the smallest number of deaths from diphtheria, only two occurring in each locality. The Harringay Ward has the lowest death rate from pneumonia, and comes next to West Green in the smallness of its death rate from Consumption, but claims the unenviable notoriety of being the only Ward in which a murder was committed during the year.

As altitude and dryness of soil are credited with influencing death rates very materially, the following particulars may be found of interest. The subsoil water is very superficial in most parts of the district, being within a few feet of the surface in several portions of the St. Ann's and Lower Wards.

ALTITUDE OF THE VARIOUS WARDS

(ORDNANCE DATA.)

HARRINGAY.—The highest point is along the western boundary (adjoining Hornsey); here the

surface of the ground is 75 ft. above the sea level, falling, however, on the eastern side to 50 ft. in a small portion near Black Boy Lane it descends as low as 35 ft.

WEST GREEN.—The central part (Downhills) is 100 ft. above sea level, falling, however, to 75 ft. on the northern, western and southern outskirts.

ST. ANN'S.—At the extreme southern boundary the height is 75 ft. ; it soon, however, falls to 50, and in the greater portion of the Ward it is only 35 ft.

HIGH CROSS.—The highest parts are in the north-western portion of the Ward, the south-western corner of which is from 50 to 75 ft. higher, falling on the eastern side to 35 ft. at the High Road and considerably lower towards the Lea.

MIDDLE.—The extreme westerly part varies in height from 75 to 100 ft., which decreases to 50 and 35 ft. about the line of the High Road and falls further still towards the marshes.

LOWER.—In the north-western corner (at Clay Hill) the height is 100 ft., but soon falls to 50 ft. in a south-westerly direction towards the central part where the

Moselle runs; on the east side of the High Road the altitude varies from 35 ft. adjoining the thoroughfare to less than 25 ft. on the marshes.

FOOD AND DRUGS ACTS, 1875-9 AND 1899.

The County Council is the authority entrusted with the enforcement of the provisions of this Act, but I have endeavoured to supplement the excellent work of Mr. Bridge when occasion offered, and have had 7 samples of milk and 3 samples of butter analysed during the course of the year, with, however, negative results so far as adulteration is concerned.

FACTORY AND WORKSHOPS ACT, 1901.

Important and increased duties have been imposed on Sanitary Authorities under this Act, which came into application in January, 1902, and the Medical Officer of Health is required to report on the administration of the Act in so far as such administration is in the hands of the District Council; the duties relate to Factories, Workshops, and Workplaces.

“Laundries” do not come within the definition of “Factories and Workshops,” but under Sec 103 of the Act, they are, so far as sanitation and means of escape from fire are concerned, to be treated as “Factories” if

mechanical power is used ; if mechanical power is not used, as “ workshops.” While “ Factories ” and “ Workshops ” are defined in the Act, “ workplaces ” are not so defined, but the latter are supposed to include kitchens of restaurants and livery stable yards. In the case of factories, the Council is charged with the duty of seeing that every factory in its district is provided with the means of escape in case of fire ; this duty was imposed by the Council on your Surveyor, and has been, need I say, faithfully carried out. My Inspectors and myself have visited the factories in your district, and seen that the requirements of Sec. 22 of the Public Health Amendment Act were carried out, and suitable sanitary conveniences provided. I am at present dealing with one case in which the owner refuses to comply with the requirements of the Act. Separate w.c. accommodation for the sexes was provided in three instances.

WORKSHOPS AND WORKPLACES.

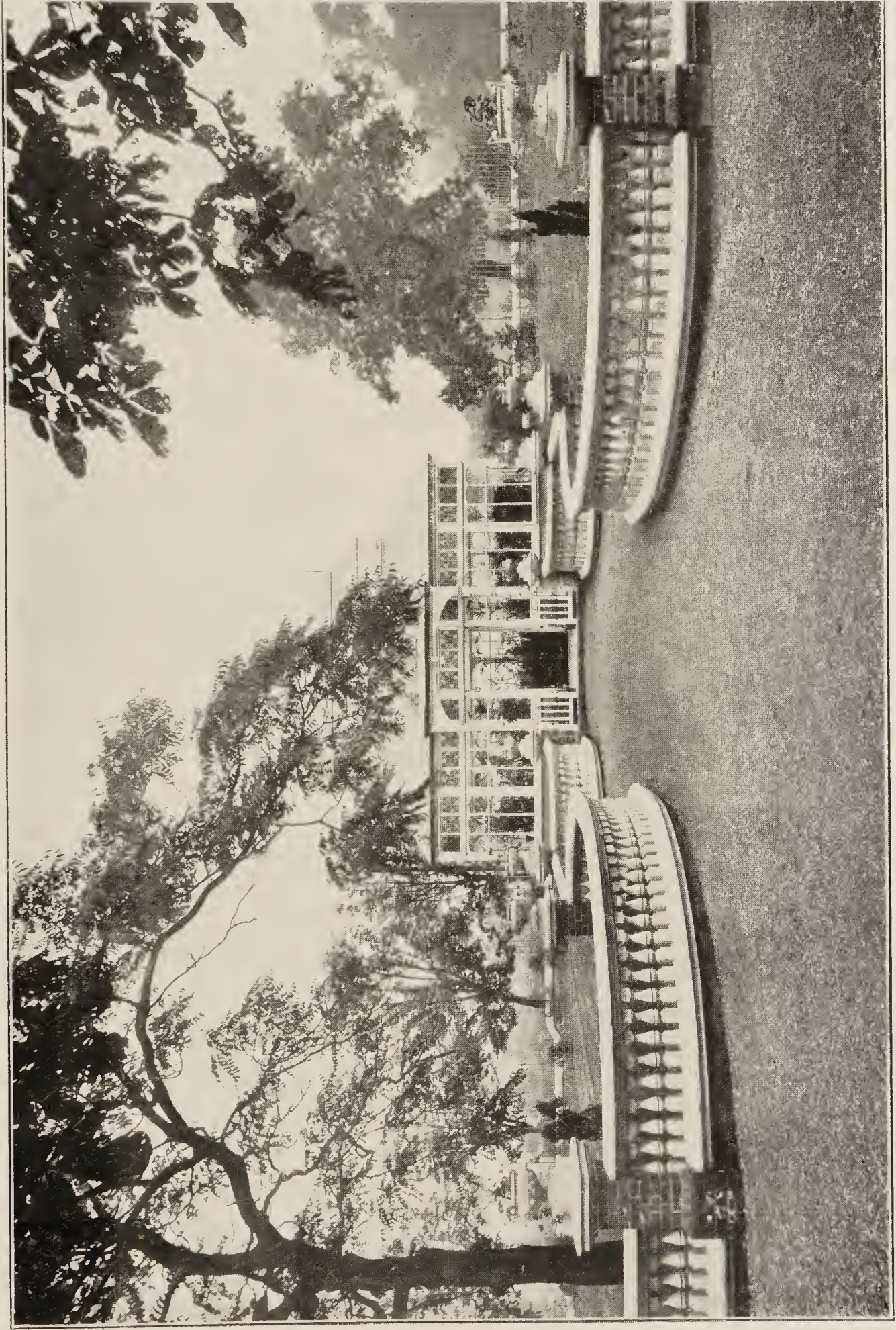
The number of such premises registered under the Act at the close of 1903 was—32 domestic workshops, 37 laundries, 51 retail bakehouses. I have been particularly careful to enquire—first, into the sanitary condition of workshops and workplaces generally ; second, into the special sanitary regulations for bakehouses and

ice cream factories ; third, into the condition under which home work is performed ; fourth, into the provision of means of escape from fire.

1. “ SANITARY CONDITIONS ” include cleanliness, air space, ventilation, and drainage of floors of workshops and workplaces where either men or women are employed. Three workshops were found to be over-crowded, seven required improved means of ventilation, while two laundries needed improved floor drainage ; in all cases the defects were speedily remedied on request by this Department. Nearly all the workshops in your district are “ domestic workshops,” that is, “ premises where the only persons employed are members of the same family dwelling there,” and their sanitary condition on the whole is fairly satisfactory. The chief workshop industries of the parish are—general dressmaking, blouse making, tie making, tailoring, wig making, and umbrella (and walking stick) making.

2. BAKEHOUSES.

There are 51 retail bakehouses in your district ; they have been systematically inspected throughout the year and the general statutory requirements duly enforced. 6 underground bakehouses have been licensed under Sec. 101 of the Act. This Department has refused to



DOWNHILLS PARK. (Greenhouse, with Victoria Stone Parapets.)

This Photograph is from a block kindly lent by my colleague, W. H. Prescott, Esq., Engineer to the Council.

recommend the granting of a license in 4 cases, and only advised your Council to license the above 6 when suitable and necessary alterations had been made as to construction, air space, light, ventilations, etc.

2 (a). ICE CREAM FACTORIES.

There are 13 Ice Cream Factories registered in the district ; all have been regularly inspected.

3. HOME WORK.

Under this heading important powers were given to your Authority for controlling the conditions under which certain classes of work are done in the homes of the workers. Secs. 107—115 forbid such work being done in (1) unhealthy dwellings, (2) in premises where there is dangerous infectious disease.

4. SAFETY FROM FIRE.

I have already alluded to this provision under “Factories,” but I now wish to point out to your Authority that under Sec. 16 of this Act, a new and important power is given to your Council to make bye-laws for providing means of escape from fire in the case of any factory or workshop. The fact that more and more factories are being removed from London into districts like yours, makes it an important consideration and necessary precaution to safeguard the workers.

INFECTIOUS DWELLINGS.

The work performed under this head was the most important connected with the Act owing to the large number of domestic factories in this district; an ever-changing register has to be kept, which entails an enormous amount of clerical work, the Act provides that every person employing outworkers shall forward to the local authority twice yearly (on or before 1st February or 1st August) a list of those so employed. 126 lists were received during the year representing 157 employers, and 344 outworkers. In every case where infectious disease showed itself on premises where home work was being carried on, the employer was notified immediately, no further work was taken in until the premises were fumigated, and any suspected articles of clothing, etc. duly disinfected.

HOUSING OF THE WORKING CLASSES.

A scheme under Part 3 of the Housing of the Working Classes Act being at present warmly debated by the Council, I do not feel that I should be justified in making more than general observations upon this subject. It is, however, a fact which cannot be gainsaid that the larger the proportion of the poor of any district that can

find accommodation in well built houses the less will be the general and zymotic death rates of that district, and the less also will be its necessary expenditure on infectious diseases, on the alleviation of poverty and insanity, and on the repression of crime—Prevention is better than Cure—

“Coom oop, proputty, proputty—that’s what I ’ears ’im saäy—

Proputty, proputty, proputty—canter an’ canter awaäy.”

OVER-CROWDING.

In no instance during the year has it been found necessary to take legal proceedings to diminish overcrowding, as the nuisance, when found to exist, is immediately abated in accordance with the requirements of this Department.

COMMON LODGING HOUSES.

1 and 2, Waggon Lane.

2 and 4, Whitehall Street.

9 and 11, Arthur Road (now discontinued.)

These have been regularly inspected, and generally speaking are now kept in good sanitary condition.

ALIEN IMMIGRATION.

The influx of alien immigrants (mostly German, Polish and Russian Jews) to the Hale District has caused this department much worry and labour during the year ; nine-tenths of the cases of overcrowding found in the district have occurred in the tenement houses in the neighbourhood of Lebus's and Flatau's Factories. Accompanied by one or other of my Inspectors I have paid frequent night visits in this locality, and wherever any overcrowding was found to exist it was immediately abated. In some cases, however (like 19, Fawley Road), the house has to be kept under continuous surveillance, not merely because of the tendency to overcrowding, but also because the owner endeavours to trade surreptitiously in various food materials, for which there is no other store house than an occupied bedroom.

HOUSES CLOSED.

Eleven houses were closed during the year as being unfit for human habitation, but in only one of these cases (1, North Grove, St. Ann's Ward) was it necessary for me to take legal proceedings to enforce such closure.

" SLUM " PROPERTY.

There exists a considerable amount of what may be fairly termed " slum " property in four of the wards of your

district (St. Ann's, High Cross, Middle, and Lower). The houses embraced under this category are a considerable source of anxiety to this Department, as no sooner have some repairs been effected as a consequence of one inspection, than we find others necessary in the course of re-inspection after a very short period; such premises are practically on the borderland between legality and illegality.

FOOD INSPECTIONS.

3,013 inspections were made, which were distributed as follows :—

Butchers' Shops	...	...	...	1512
Fruiterers' Shops	...	...	...	319
Fishmongers' Shops	...	...	...	791
Miscellaneous Stalls and Barrows				391

Periodical inspections have been made on Friday and Saturday nights, and the following table will give some idea of the amount of the different foods which we found it necessary to seize and condemn :—

Meat	...	2½ cwt. Pickled Beef
—	...	29 lbs. Fresh Pork
—	...	1¼ cwt. Sausages

Meat	...	79	lbs.	Various Cooked Meats
—	...	79	lbs.	Mutton
—	...	19		Sheeps' hearts
—	...	1½	cwt.	Beef
—	...	1¼	cwt.	Sheep, Pig, and Ox Liver
—	...	78		ox kidneys
Fish	...			About 4 gals. of Shrimps
—	...	76		Roker
—	...	8	doz.	Gurnet
—	...	4	barrels	Haddocks
—	...	9	boxes	of Kippers
—	...	1½	cwt.	various other kinds, including Sole, Plaice, etc.
Fruit	...	287		Bananas
—	..	513		Oranges
—	..	1120		Apples
—	...	13		Cucumbers
—	...	1½	busheis	potatoes

FOOD PROSECUTIONS.

I took proceedings (under Secs. 116 and 117 of the Public Health Act, 1875) in the following instances and with the results detailed in table :—

Date.	Name.	Address.	Result.	Remarks.
11th June	Irwin ...	Seven Sisters Rd.	Fined 40/- and costs	Unsound fish in course of preparation for fish paste.
25th ,,	Stanley	St. Loy's Road	,, 20/- and costs (or 7 days)	
24th Sept.	Croger	West Green Rd.	,, 40/- and costs	
8th Oct.	Townsend	Culross Road ..	,, 40/- and costs	
,,	Treacher	High Road ...	,, 80/- and costs	
,,	Haswell...	Langhedge Rd	,, 60/- and costs	
29th Oct.	Wieland	Philip Lane ...	,, 10/- and costs	
,,	Balls ...	,,	Dismissed, but without costs.	Meat infected with the Cysticerci of Taenia Echinococcus.
26th Nov.	Cook ...	West Green Rd.	Fined 20/- and costs	

Two further cases are now pending, and the decision (favourable to us) in Wieland's case is being appealed against.

In the one case dismissed—that of Mr. Balls—the Justices found that the shrimps which were in the shop were unfit for human food, but asserted their belief in Mr. Balls' statement that he never intended to sell them.

SLAUGHTER - HOUSES.

Seventeen Slaughter-houses exist in your District ; they have all been regularly inspected, and notices in

many cases served to abate nuisances ; our requirements were in every instance complied with.

Under the Public Health Act of 1875 the licensing of Slaughter-houses is the licensing of " Premises," while under the Public Health Act Amendment Act, 1890, it is a licensing of " persons ;" the latter method is much to be preferred. A nominal annual fee could thus be secured to the Sanitary Authority, but what is of infinitely more importance is, that the supervision of this department would be rendered more efficient when owners realized that a license might be refused at the end of any year during which the premises had not been conducted in a satisfactory manner. One such *personal* license has been already granted.

I should like once more to insist upon the advisability of providing a Public Abattoir as the only means of ensuring a sound meat supply for the District ; moreover the present private slaughter-houses are placed in such close proximity to dwelling houses and are in many cases so defective in their original construction as to be highly objectionable.

DAIRIES, COWSHEDS AND MILKSHOPS.

Twenty-three persons have been registered during the year under the Dairies, Cowsheds and Milkshops'

Order, 1885, as against 49 in 1902 and 12 in 1901. The total number now on the Register is as follows :—

Cowsheds	...	...	18
Dairies	...	...	56
Milkshops	...	...	165
<hr/>			
Total	...	...	239
<hr/>			

With regard to the buildings, the points to which I attach chief importance are adequate lighting, efficient ventilation, good impervious flooring and effectual drainage. I endeavour to get the air space per cow approximated as nearly as possible to the 800 cubic feet suggested in the model regulations of the Local Government Board issued some four years ago.

With reference to the animals, I direct particular attention to the necessity for keeping their tails, udders, thighs and flanks free from excreta in the Winter, and their bellies, legs and teats uncontaminated by the clay or other dirt obtained by the cows walking into ponds or pits in the Summer. Once excreta has gained entrance into milk, no amount of sieving will afterwards wholly remove it. Boiling for rather more than one minute is sufficient to destroy any germs contained in milk.

GIPSY ENCAMPMENTS.

Five hundred and twenty-five encampments (against 252 in 1902 and 98 in 1901) have been removed by your Inspectors, exclusive of those dealt with by the Police. Those van dwellers are a continuous source of danger, trouble, and expense to the District, and the powers of dealing with them under the nuisance clauses of the Public Health Act are by no means sufficient or satisfactory.

OFFENSIVE TRADES.

Several nuisances arising from hair burning, rubbish burning, whalebone boiling and fat boiling have been detected either by your Inspectors or myself, and the prompt action of this department has invariably resulted in their speedy abatement.

SMOKE NUISANCE.

As the pollution of the air of a District by smoke is a serious detriment to the health of its inhabitants, I have caused a strict watch to be kept on the flues of all large works in the District. It has been found necessary to issue 79 "warnings" during the year; in no instance, however, were the grounds of

complaint sufficient to base legal proceeding upon under 38 and 39 Vict., chap. 55, sec. 91.

WATER COURSES.

For years Tottenham has been acquiring—much to the injury of house property situated therein as well as to the health of its inhabitants—an unenviable notoriety for stinking ditches and water courses. I am glad that this reputation is no longer deserved, and that it is now a place unusually free from such annoyances. Some differences of opinion still exist on this subject between the County and District Councils as to their respective duties, regarding the Moselle and Stonebridge Brooks, but I have good reason to hope that the subjects in dispute will soon be amicably settled.

BACTERIOLOGICAL DEPARTMENT.

The Bacteriological Department established during the year has proved a very decided advantage to the District. Widal's Blood Test for Typhoid (with accompanying control experiment) has been employed in 19 instances; 33 swabs have been examined for the bacillus of Diphtheria and 34 specimens of Sputum for the Tubercle Bacillus (Consumption). The results were positive in 53 per cent. of the cases.

I have also made monthly Chemical and Bacteriological examinations of water taken from various Wards in the District with the appended average results.

The results are expressed in grains per gallon. The reaction was faintly alkaline.

CHEMICAL EXAMINATION.

Total solid matter	...	...	12·61
Loss on ignition	...	...	1·39
Combined Chloride	...	...	1·068
Equal to common Salt	..		1·76
Nitrogen as Nitrates	...		absent
Nitrites	...	...	absent
Ammonia	...	...	traces
Albuminoid or Organic Ammonia			0·0041
Oxygen required to oxidise organic matter, (4 hours)...			0·053
Hardness in degrees :—			
	Temporary		6·5
	Permanent		1·6
	Total		<hr/> 8·1

The water is therefore of a satisfactory degree of organic purity, chemical examination revealing no defect save hardness.

BACTERIOLOGICAL EXAMINATION.

146 micro organisms were found per cubic centimetre ; the *Bacillus Coli Communis* was not present in

62 centimetres of the water. I have used Pfuhr's method on some occasions and Kirchner's on others in my examinations. I found the micrococcus *Aquaticus* present in all the samples ; the growth does not liquify gelatine, and its presence is of no practical moment. The micrococcus *Agilis* was present in one specimen ; its diplococci liquify gelatine very slowly, but its presence also is of little bacteriological importance—a remark which applies also to four other kinds of micrococci occasionally present in the examined specimens.

In June last I examined a specimen of water taken from a shallow well on a piece of waste ground situated at the bottom of Brook Street and at the time occupied by a gipsy encampment. The following were the particulars of the examination. The sample was filtered before analysis and the results are expressed in parts per thousand. The reaction was faintly alkaline.

CHEMICAL EXAMINATION.

Chlorine	...	...	13·1
Nitrates	...	..	absent
Nitrates	...	...	20·112
Free Ammonia	...	...	1·41
Organic Ammonia		...	1·89
Oxygen absorbed, in 4 hours			6·01

BACTERIOLOGICAL EXAMINATION.

The Bacteriological examination revealed the presence of the bacillus coli communis in all quantities of the water exceeding 5 cubic centimetres.

The water was therefore absolutely unfit to be used as a drinking water from both the chemical and bacteriological standpoint. I was not surprised to find that at least one child who had on several occasions partaken of the water, developed Gastro-Enteritis which nearly ended fatally. I have, of course, taken the necessary steps to prevent such water being used for drinking purposes.

In November I made a careful Chemical and Bacteriological examination of a sample of milk suspected to have caused a case of Typhoid fever; the sample showed the milk to be of poor quality and slightly diluted with water, but not otherwise objectionable chemically or bacteriologically.

LADY HEALTH VISITOR.

I am pleased to be able to inform you that Miss Newton has, so far, worked earnestly and intelligently. Contrary to the anticipations of the "prophets," she has been well received and her work

fully appreciated throughout the district save in very few instances. I have found the appointment fraught with so many advantages that I earnestly trust a second Lady Health Visitor will be appointed in the course of the year.

SHOOTING OF HOUSE REFUSE, SLOP, ETC., WITHIN THE DISTRICT.

There have been complaints regarding the above at the following, amongst other places :—Near South Tottenham Station, Williamson's Brickfields, White Hart Lane, Willoughby Lane.

The nuisances complained of have in every case been abated.

DUST COLLECTION.

12,700 loads (29,530 tons) of house refuse have been collected and removed by the contractors. There have been fewer complaints during the later than there were during the earlier part of the year with regard to the method of collection. I shall be pleased, however, when the arrangements are altogether in our own hands, as very considerable dissatisfaction prevails on the subject throughout the district.

REFUSE DESTRUCTOR.

I am glad to be able to report that the Buildings in

connection with above are approaching completion, and the cells, etc., are in course of construction ; I hope the Destructor will be ready for use by Midsummer.

HOUSES AND POPULATION.

The number of houses and shops actually erected in Tottenham in the year 1903 was 664, as against 712 for the year 1902.

The number of Buildings for which plans were passed by the Council was as follows :—

	1900.	1901.	1902.	1903.
Dwelling Houses & Shops	1183	971	808	846
Other Buildings	107	50	36	66
Alterations and Additions	76	52	53	35
	<hr/>	<hr/>	<hr/>	<hr/>
	1366	1073	897	947
	<hr/>	<hr/>	<hr/>	<hr/>

PLANS PASSED FOR HOUSES IN TOTTENHAM DURING THE PAST TEN YEARS :—

1894	...	...	...	334
1895	...	...	...	408
1896	...	...	...	963
1897	...	...	...	349
1898	...	...	...	907
1899	...	...	...	1216
1900	...	...	...	1366
1901	...	...	...	1073
1902	...	...	...	897
1903	...	...	...	947



AVENUE OF HORNBEAMS, DOWNHILLS PARK.

*This Photograph is from a block kindly lent by my colleague, W. H. Prescott, Esq.,
Engineer to the Council.*

WATER SUPPLY.

To carry the water supply to new premises and to improve defective supplies where necessary 2833 yards of new Water Main have been laid and 60 hydrants fixed.

The water fittings in 9,328 houses have been inspected and the necessary notices to remedy defects served. The amount of water consumed daily during the past year has averaged 15 gallons per head of the population.

WATER WORKS.

The pumps at the Park Pumping Station and the Hale Water Works are in satisfactory working order.

In connection with the compulsory purchase of the Council's Water Undertaking by the Metropolitan Water Board, an enormous amount of extra work has been imposed on the Engineer's Department, owing to the necessity of preparing complete plans and sections.

DRAINAGE.

The whole district has a duplicate system of sewers, and practically every house has water closet accommodation.

Since the work of examining all sewers in the District was commenced in March, 1896, the following

works have been carried out :—

55 miles of soil sewers plotted and examined.

41 „ surface „ „ „

The re-laying of all defective sewers in Nos. 1, 2 and 3 Districts has been completed. The total length of soil and surface water sewers to be kept clear and in working order is now about 260 miles.

During the year the following work was carried out :—

Defective Mains repaired...	...	73
New Man-holes built	... ..	219
Ventilating Shafts erected	...	4
Stoppages cleared	... ..	275
Connections made	... ..	436
Drains examined and passed	...	300

LIST OF PRINCIPAL STREETS AND OTHER IMPROVEMENTS COMPLETED DURING THE PAST 12 MONTHS.

1. Fire Station and General Depot, Conway Road.
2. Widening of Ferry Lane.
3. Ditto West Green Road.
4. General Depot Buildings and Siding, High Cross
5. Boulevard, opposite “ Queen’s Head,” Green Lanes.
6. Concrete Surface Water Culvert in the High Road

7. Paving North Side of Chesnut Road.
8. Ditto, Ferry Lane.
9. Ditto, East Side of Broad Lane.
10. Ditto, High Road, near Broad Lane.
11. Ditto, junction of West Green Road and Green Lanes
12. Boulevard, opposite Howard Terrace, High Road.
13. Boundary Wall and Laying-out of Downhills Park and Recreation Ground.
14. Bowling Greens, Tennis Courts, and Shelters, at Bruce Castle, Downhills, and The Chesnuts Parks.

IMPORTANT WORKS AND SCHEMES NOW BEING CARRIED OUT OR UNDER THE CON- SIDERATION OF THE COUNCIL.

Refuse Destructor.

The Provision of Permanent Accommodation for Small
Pox Patients.

Central Fire Station.

Public Baths.

Electrification of North Metropolitan Tramway System.

Light Railway Scheme.

Paving Main Roads with Wood.

Scheme for the Housing of the Working Classes.

Recreation Ground, Down Lane.

Parliamentary Plans for Midland Railway Extension.

Approach Road to General Depot, High Cross.

Improvement of the High Road, from West Green Road
to the Green.

Ditto, Tottenham Green West, from Eagle Avenue to
Philip Lane.

Construction of 3 Underground Conveniences :—

High Road Junction of Park Lane.

Junction of High Road and Seven Sisters Road.

Ducketts Common, Green Lanes.

Improvement of the Marshes for Recreation Purposes.

The tender of Messrs. Rowley for 3 Underground Conveniences has been accepted, and the work is to be put in hand immediately. Two are to have Lavatory as well as W.C. and Urinal accommodation. I should like to see the number of Underground Conveniences still further extended.

PRIVATE STREET WORKS.

During the year 1903, 30 private roads were made up under the Tottenham Local Board Act, 1890, at a cost of £24,712, and declared Public Highways.

Tenders have been accepted for the making up of

the following private roads, and the works will shortly be commenced, viz. :—

1. Beaufoy Road (Remainder)
2. Farningham Road.
3. St. Loys Road (Remainder).
4. St. Margarets Road.
5. Lealand Road.
6. Mitchley Road (Remainder).
7. Sperling Road.
8. Strode Road.

Plans for the making up of 9 private roads have been submitted and notices for same served, and the plans for several others are now being prepared.

ELECTRIC LIGHTING.

A scheme for Lighting the District Electrically has been prepared, but it was referred back to the Committee appointed to deal with this matter, and a further report will be submitted this month.

LONDON COUNTY COUNCIL'S NEW ESTATE, LORDSHIP LANE, FOR HOUSING 45,000 PEOPLE.

The London County Council have laid out the first section of their estate, and the dwellings are being erected thereon.

The second portion is now under consideration.

It will be in your recollection that on the 15th December I reported to your Council that :

“ In view of the prospective invasion of our District by so many thousands of London workmen, I have requested the L.C.C. to inform me as to what extent they purpose providing gardens and open spaces for the recreation of the children they are undertaking to house ; so far I have not received a satisfactory answer.”

I am glad to be enabled to inform you that the Council have now informed me, through their Clerk, that they intend “ providing at least one open space of about 8 acres in extent in connection with the Lordship Lane Estate.”

COLLECTION OF SLOP AND TRADE REFUSE.

18,700 loads of slop and other refuse have been collected and removed during the year.

MAIN ROADS.

During the past year the above have been paved with creosoted deal blocks on 6" Portland cement concrete for about $\frac{3}{4}$ of their area, and the remainder will doubtless be completed by the end of February, 1904.

The whole of the Tramways have been re-laid and paved with wood, with the exception of the portion between Bailey's Lane and South Tottenham Station. The centre poles and side poles have yet to be erected; the plans for the various widenings have been made by the Engineer's Department, and are now before Parliament.

LORDSHIP LANE AND BRUCE GROVE.

The widening of these thoroughfares is being proceeded with, and the Tramways will probably be completed next month.

ELECTRIC CABLES FOR TRAMWAYS,

The whole of the cables in the Main Roads (Lordship Lane and Bruce Grove) including the High Tension Cables for the Metropolitan Power Supply Co., will be completed this month.

SEWERAGE OF THE DISTRICT.

The soil sewage of the District is collected by the main sewers, which are under the control of the Tottenham and Wood Green Joint Drainage Committee, and are as follows :—

A 5ft. by 3ft. 4in. brick egg-shaped sewer from the Sewage Works to the High Road, thence a

2ft. 6in. by 1ft. 8in. and a 2ft. 3in. by 1ft. 6in. brick sewer side by side along Highweek Road, Stonebridge Road and Seven Sisters Road to Culvert Road, from this point a 2ft. 6in. by 1ft. 8in. brick sewer and an 18in. pipe sewer are laid to Cornwall Road, thence there is an 18in. pipe sewer laid in a Westerly direction to Green Lanes, near Colina Road, and along Green Lanes Northwards to Wood Green.

These sewers take the soil drainage of about one-third of Wood Green and half of the Tottenham District. At the entrance to the Sewage Works a 3ft 6in. by 2ft 4in. brick sewer discharges into the 5ft. by 3ft. 4in. sewer. This 3ft 6in. by 2ft. 4in. brick egg-shaped sewer passes through Markfield Road, Broad Lane, The Hale, Chesnut Road, High Road, and Lordship Lane to Station Road, Wood Green ; as this sewer is inadequate to deal with the sewage of Wood Green and the Northern portion of this Parish lying between Mount Pleasant, the High Cross, and the Edmonton Boundary, another 5ft. by 3ft. 4in. brick sewer is in course of construction from the Sewerage Works along Markfield Road, Broad Lane, The Hale, Chesnut Road, High Road, St. Loys Road, Bruce Grove Road, Bruce Grove, and Lordship Lade to Mount Pleasant Road, and then a 3ft. 6in. by

2ft. 4in. brick sewer in Lordship Lane to the Wood Green Boundary, at a cost of about £30,000.

Plans for the combined drainage of 485 houses have been submitted and approved by the Council during the year.

PETROLEUM LICENSES.

During the past 12 months 14 licenses have been granted for the sale of Petroleum.

FIRE BRIGADE.

Tottenham is now the fortunate possessor of a Motor Escape and Chemical Engine and a Motor Fire Engine ; its Brigade—which is under the able superintendency of Mr. Eddington—is one of the best equipped and most effective in the kingdom.

AMBULANCES.

The Council possesses two ambulances, one suitable for the removal of ordinary infectious cases and the other specially built for the removal of small-pox patients ; the former, however, is scarcely ever used, as the M.A.B. authorities at present send their own ambulance for all cases admitted into their hospitals. I believe it would be at once a gain in efficiency and a saving of expense if

we undertook the removal of our own fever patients, as we do of those suffering from small-pox.

The refusal of the M.A.B. Authorities to remove cases without a special (second) certificate from the Medical Attendant has, on various occasions throughout the year, been a cause of serious danger, inconvenience, and delay, as the doctors in attendance frequently forget to leave a second certificate, and indeed complain that it should be considered necessary.

THE TRAMWAY SYSTEM.

Cars run between Tramway Avenue, Lower Edmon-
ton, Tottenham, Finsbury Park, and Wood Green every
few minutes, from 7 a.m. until 10.40 p.m. on week days.
These lines are now being re-constructed for electric
traction to be worked in connection with the authorised
lines of the Middlesex County Council.

Cars also run frequently between the (High Road)
corner of Seven Sisters Road and Aldgate, Moorgate
Street, and London Docks, *via* Commercial Street; and
also from Stamford Hill to Holborn.

Trams belonging to another Company run from
Finsbury Park to Holloway, Islington, Moorgate Street
Holborn, and Euston Road.

TRAIN SERVICE.

There is a frequent train service to Liverpool Street (G.E.R.) from White Hart Lane, Bruce Grove, Seven Sisters, Stamford Hill, Park, Tottenham Hale, and West Green Stations; other branches of the Great Eastern passing through Tottenham connect Chingford, Gospel Oak, and Stratford with Enfield and Palace Gates. South Tottenham is also connected by means of the Midland Railway with Southend and Tilbury on one side and King's Cross and Moorgate Street on the other.

INCORPORATION.

The Council has unanimously decided to support the movement in favour of Incorporation; such a movement must doubtless be successful, if properly led and limited; the realization of its object would confer certain additional powers upon the Sanitary Authority and so be a distinct gain to the Public Health Administration of Tottenham.

PRINTED REPORTS BY MEDICAL OFFICER OF HEALTH.

1. ANNUAL REPORTS.

Since my appointment I have issued the Annual Reports of 1901-2, and now issue that for 1903. I did not occupy the position of Medical Officer of Health to

your Council in 1901, but the force of circumstances compelled me to draw up the Report for that year.

2. SPECIAL REPORTS.

(a) Small-Pox Report.

Towards the close of 1902 I issued a special pamphlet on this subject, copies of which are still available for those interested.

(b) Reports of the Sanitary Congresses at Bradford and Liverpool.

During the summer of 1903 I issued a resumé of the chief papers and discussions at the above congresses.

(c) Report on Summer Diarrhæa.

In August last I issued a report and leaflets on the above subject. The leaflets were widely distributed, more particularly in the poorer districts, and I have reason to believe they contributed their quota to the reduction in the annual Death Rate from this cause.

(d) Report regarding Permanent Small-Pox Accommodation.

About six weeks ago I issued a report on the above subject, in which I advised the Council to co-operate with neighbouring Authorities in the provision of permanent accommodation for their small-pox cases.

(c) Report re Housing of the Working Classes.

I am now engaged in a report on the above subject in connection with a letter and statistics furnished to your Council at its last meeting by Mr. A. E. Harvey on behalf of the Tottenham Housing League.

NEW BYE-LAWS.

(a) Bye-Laws relating to "Houses let in Lodgings."

These bye-laws were, on my recommendation, adopted by your authority, and approved by the Local Government Board.

94 houses have so far been registered under their provisions.

(b) Bye-Laws under the "Employment of Children Act, 1903."

I have submitted bye-laws under the above Act to the directed Committee ; I presume they will be formally adopted at the next ordinary meeting of the Council.

INCREASE OF CORRESPONDENCE.

The enormous increase in the number of letters sent out from this Department during the past year will serve as an index to the increased amount of work accomplished during the same period.

PARKS AND OPEN SPACES.

“Bruce Castle Park”—in which the offices of the Public Health Department are situated—has an area of 20 acres. “The Chestnuts” Recreation Ground, St. Ann’s Road, contains 20 acres; the “Down Field,” Tottenham Hale, $19\frac{1}{2}$ acres; the “Marshes,” $107\frac{1}{4}$ acres. The extent of the beautiful “Downhills Park,” which was only opened last August, is $26\frac{1}{4}$ acres; the estate, of which the Park is a portion, originally consisted of 290 acres, and on a portion of the land acquired by the Council an old-fashioned mansion stood, where at different times many London celebrities—including at least one Lord Mayor—resided. One-third of the site has been laid out in gardens, the remaining two-thirds are used as a recreation ground. The “garden” portion includes an Avenue of Hornbeams, believed to be the most perfect one in existence.

All those Parks are opened daily from 9 a.m. till dusk in winter; and from 7 a.m. to 8 30 p.m. in summer.

COMMONS.

- 1 Tottenham Green (West), High Road, has an area of
1 acre, 2 roods, 6 poles, 4 yards.
- 2 Tottenham Green (East), High Road, has an area of
2 roods, 31 poles, 24 yards.

- 3 Page Green (between High Road and Earlsmead Board School), has an area of 1 acre, 2 roods, 8 poles, 26 yards.
- 4 Page Green Terrace (High Road, South Tottenham), has an area of 2 roods, 35 poles, 13 yards.
- 5 West Green (at junction of Philip Lane and West Green Road), has an area of 1 acre.
- 6 West Green (near Green Lanes), has an area of 2 acres, 1 rood, 8 poles, 27 yards.
- 7 Duckett's Green, Green Lanes, has an area of 6 acres, 1 rood.
- 8 Common, High Road, between West Green Road and Seven Sisters Road, has an area of 27 poles.
- 9 Common, opposite The Grove, High Road, South Tottenham, has an area of 3 roods, 32 poles.
- 10 High Cross Common, High Road, has an area of 31 poles, 7 yards.

FREE PUBLIC LIBRARIES.

The Central Library is situated at 395, High Road, and a Branch Library has been established at "The Chestnuts," South Tottenham. Both are open daily from 9 a.m. to 10 p.m. The Librarian is Mr. F. West.

PUBLIC INSTITUTIONS.

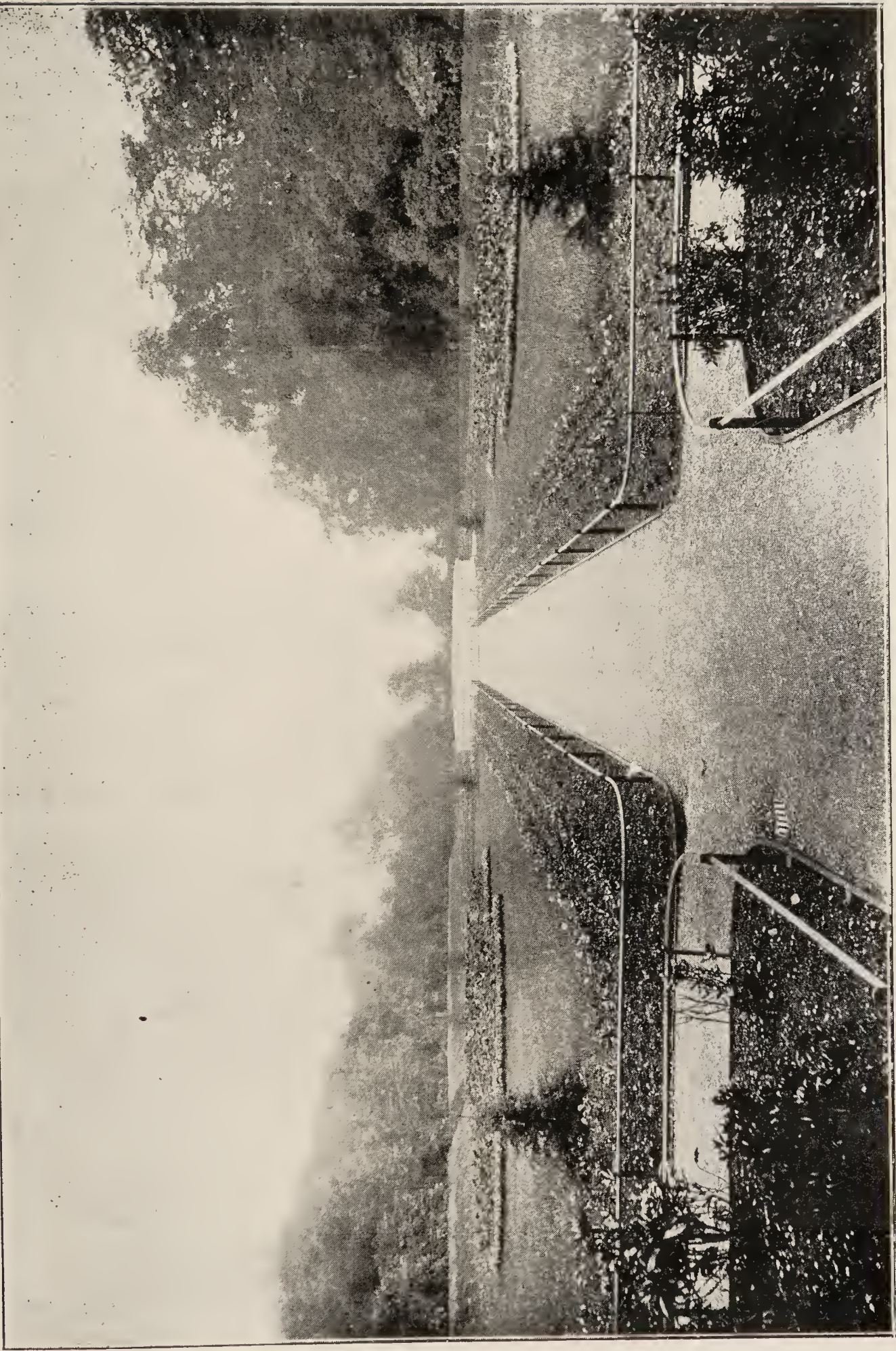
The North Eastern Fever Hospital at the close of the year contained 340 patients and 263 officials, the Tottenham General Hospital 75 patients and 45 officials, and the Jewish Home for Incurables 58 patients and 24 officials.

REDUCTION IN THE ANNUAL BILL OF THE METROPOLITAN ASYLUMS BOARD.

In accordance with the great decrease of the number of infectious cases in your District comes the very agreeable corresponding decrease in your expenses thereon. *The bill of the Metropolitan Asylums Board for 1902 was £6087 4s. 3d., this year it only amounted to £4454 16s. 8d.*

INHABITED HOUSE DUTY.

A number of inspections have been made under the Customs and Inland Revenue Act, 1890, on application from owners for certificates exempting them from Inhabited House Duty. I have only granted such certificates where the houses have been so constructed as to afford suitable accommodation for those families or persons inhabiting them, especially having regard to the sanitary requirements.



DOWNHILLS PARK.

This Photograph is from a block kindly lent by my colleague, W. H. Prescott, Esq, Engineer to the Council.

HORSE TROUGHS.

There are three of these troughs in the High Road, viz., at The Green, Coombes Croft House, and opposite Northumberland Park.

FISH OFFAL VANS.

No complaints have been received as to any nuisance arising from the collection and removal of fish offal during the year.

DRAINS TESTED.

1863 drains were examined. 347 were found to be defective.

Return of Marriages in Tottenham during 1903.

Marriages at Registrar's Office	...	...	...	...	...	403
Do. Church of England	...	...	...	...	...	555
Do. Nonconformist Chapels	...	...	...	..	...	130
Total	...	...	...	...	...	1088

In connection with the above table I have to acknowledge in the first place the courtesy of the Registrar, and in the second place that of the Clergymen for the various Churches who so kindly forwarded me the figures from October 1st to December 31st.

TOTTENHAM TENEMENTS ACCORDING TO CENSUS, 1901.

Urban District.	Rooms in Tenement.	Tenements of less than five rooms.	Persons per Tenement.											
			1	2	3	4	5	6	7	8	9	10	11	12 or more.
Tottenham	1	965	447	299	152	48	12	6	1	—	—	—	—	—
Total Tenements—21,910	2	1,995	224	586	486	357	199	92	32	15	3	1	—	—
Tenements of less than	3	3,154	109	716	853	577	427	234	133	74	20	8	2	1
five rooms—9,453	4	3,339	47	455	594	637	599	423	289	153	104	21	11	6

I believe that the proportion of “one-room” tenements is now considerably less than in March, 1901.

*Table shewing number of Births and Deaths in District during the year 1903
in quarters.*

				Births.	Deaths.		
Quarter to 31st March...	...	Males	...	446	179		
		Females	..	405			
				} 851	} 363		
,, 30th June ...	...	Males	...	447	163	
		Females	...	425			
				} 872	} 322		
,, 30th September	...	Males	...	463	130		
		Females	...	438			
				} 901	} 259		
,, 30th December	...	Males	...	464	163		
		Females	...	388			
				} 852	} 324		
				<hr/>			
				Males	...	1830	635
				Females	...	1646	
						} 3476	} 1268
				<hr/>			

Mortuary Table for the Year 1903.

Bodies Admitted.				Number of Post Mortems.			Numb'r of In- quests.	Numb'r of Fun- erals.	Number of Drowning Cases.
Month.	Males.	F'males	Total.	Males.	F'males	Total.			
Jan.	10	12	22	7	10	17	20	21	0
Feb.	12	7	19	11	6	17	16	20	1
Mar.	11	8	19	10	8	18	19	18	0
April	11	16	27	6	11	17	25	21	2
May	9	3	12	4	2	6	11	17	2
June	7	5	12	4	3	7	12	13	1
July	8	3	11	4	3	7	11	9	2
August	12	6	18	8	5	13	16	20	0
September	10	7	17	8	4	12	14	15	2
October	7	11	18	6	10	16	21	21	0
November	12	9	21	2	8	10	20	20	0
December	3	1	4	3	1	4	4	5	0
Total	112	88	200	73	71	144	189	200	10

Table shewing Population, and General and Zymotic Death Rates in the last six Census years, compared with 1903.

Census Years.				Population of Tottenham.	Death Rates from all causes.	Death Rate per 1000 from 7 principal Zymotic Diseases.
1851	...	...	...	9,120	17·6	3·6
1861	...	...	...	13,875	19·3	3·4
1871	...	...	...	22,857	20·6	4·7
1881	...	...	...	46,441	16·9	2·8
1891	...	...	...	70,294	15·9	1·7
1901	...	...	...	103,243	14·6	3·7
1903	...	...	...	117,797	10·7	1·4

Table shewing number of Births in 1903 and Birth Rate—by Wards.

Ward.	No. of Births.	Population.	Rate.
Harringay	563	19,275	29·208
West Green	337	12,281	27·440
St. Ann's	788	24,881	31·670
High Cross... ..	621	22,327	27·366
Middle	696	20,740	33·558
Lower	471	18,293	25·747
Total	3476	117,797	29·517

Table shewing number of Deaths in 1903 and Death Rate—by Wards.

Ward.	No. of Deaths.	Population.	Rate.
Harringay	166	19,275	8·612
West Green	114	12,281	9·282
St. Ann's	346	24,881	13·906
High Cross... ..	190	22,327	8·519
Middle	224	20,740	10·800
Lower	228	18,293	12·476
Total	1268	117,797	10·7

Table shewing General and Zymotic Death Rate of Towns with similar population to Tottenham.

						General Death Rate.	Zymotic Death Rate.
Tottenham	...	...	...	...	...	10·7	1·44
Willesden...	...	...	...	...	...	12·01	1·50
Brighton	...	...	...	...	...	15·08	·84
Southampton	...	...	...	...	...	13·82	1·30
Plymouth	...	...	...	...	...	16·45	1·89
West Ham	...	...	...	...	...	15·20	2·63
76 Great Towns	...	...	...	...	..	16·24	1·89

Calculated from the weekly returns of the Registrar General.

Table shewing the relation of the General Death Rate, Zymotic Death Rate, Infantile Mortality, and Consumption Death Rate to the density of population per acre.

					Density per Acre.	Death Rate per 1000.	Zymotic Death Rate per 1000.	Infantile Mortality per 1000 Births.	Phthisis Death Rate per 1000 Living.
Tottenham	...	...	..		39·09	10·7	1·4	124 (nearly)	·48
Liverpool	...	...	...		51	21·6	3·4	162	1·8
Manchester	...	...	...		42	20·0	1·99	152	—
Bootle	...	...	...		39	18·9	2·7	154	1·6
Wigan	...	...	...		28	20·2	3·2	158	0·89
Preston	...	...	...		28	17·5	2·7	189	1·01
Warrington	...	...	...		21	16·6	1·5	149	1·0
Sunderland	...	...	...		43	19·3	1·9	153	1·4
Birmingham	...	...	..		41	18·0	2·6	157	1·6
Bristol	...	...	...		28	17·8	2·7	130	1·2
Cardiff	...	...	..		19	16·7	2·7	145	1·2
Bradford	...	...	...		12	15·7	1·4	138	1·2
Huddersfield	...	...	...		8	17·7	1·6	138	1·7
Halifax	...	...	...		6	15·1	0·85	152	0·94

Table shewing number of Deaths from Special Diseases during each Quarter of 1903.

Wards.		Small Pox.	Scarlet Fever.	Diphtheria.	Enteric.	Phthisis.	Total.
Harringay	March	2	...	2	13
	June ..	...	...	2	...	1
	September ...	...	...	..	1	2
	December ...	...	...	...	1	2
		...	...	4	2	7
West Green	March	1	2	5
	June ..	...	...	...	...	...
	September ...	...	..	...	...	1
	December ...	...	...	...	..	1
		.	...	...	1	4
St. Ann's	March	1	1	1	3	23
	June ...	...	...	2	...	5
	September ..	...	...	.	...	2
	December ...	...	...	2	2	4
		...	1	5	3	14	
High Cross	March	1	13
	June ..	...	...	1	..	5
	September ...	...	...	...	...	..
	December ...	...	..	1	...	5
		...	1	2	...	10	
Middle	March	1	..	2	18
	June ...	...	1	...	1	2
	September ..	..	...	1	..	3
	December ...	...	...	...	1	6
		...	1	2	2	13	
Lower	March	1	1	2	14
	June ...	..	1	...	...	1
	September ...	...	...	1	...	5
	December ..	...	...	1	...	1
		...	1	3	1	9	
	Total	4	16	9	57	

TABLE II.

Vital Statistics in 1903 and previous years.

WHOLE DISTRICT.					Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Deaths under one year.
YEAR.								
1893	...	...	...	...	75,090	2580	1429	379
1894	...	...	...	...	75,000	2437	1176	337
1895	...	...	...	...	78,256	2602	1297	371
1896	...	...	...	...	83,790	2513	1227	377
1897	...	..	...	..	87,180	2643	1314	430
1898	...	...	...	..	91,692	2707	1209	465
1899	...	..	...	...	96,498	2925	1466	478
1900	...	...	...	...	98,268	2964	1445	498
1901	...	..	...	...	103,243	3179	1550	421
1902	...	...	...	...	107,003	3397	1438	408
1903	...	...	...	...	117,797	3476	1268	431

Ward Statistics for the Year.

Harringay (New District 1902), Ward	19,275	563	166	51
West Green Ward	12,281	337	114	51
St. Ann's ,,	24,881	788	346	135
High Cross ,,	22,327	621	190	60
Middle ,,	20,740	696	224	77
Lower ,,	18,293	471	228	67

Comparison of the Triennial Periods, beginning with the last four decades.

					General Death Rate.	Zymotic Death Rate.
1871	...	...	...	...	20·6	4·7
1872	...	...	...	...	17·6	3·9
1873	...	...	...	...	20·2	4·5
1881	...	..	...	...	16·9	2·8
1882	...	..	...	...	18·0	4·0
1883	...	...	...	...	16·1	2·7
1891	...	...	...	...	15·9	1·7
1892	...	...	...	...	16·8	2·6
1893	...	...	...	...	16·3	2·2
1901	...	...	...	...	14·6	3·7
1902	...	...	...	...	13·4	2·1
1903	...	...	...	...	10·7	1·4

Table shewing No. of Cases of Infectious Disease notified each quarter during the year 1903.

		Small Pox.	Scarlet Fever.	Diphtheria.	Membranous Croup.	Typhoid Fever.	Erysipelas.	Puerperal Fever.	Chicken Pox.	Total.
Harringay Ward.	March	—	11	8	—	1	3	1	4	28
	June	—	2	6	—	1	2	—	—	11
	September ...	—	18	6	—	3	2	—	—	29
	December ...	—	16	2	—	—	—	—	—	18
		—	47	22	—	5	7	1	4	86
West Green Ward.	March	—	10	6	—	5	—	—	6	27
	June	—	5	3	—	1	1	—	—	10
	September ...	—	6	2	—	2	—	—	—	10
	December ..	—	—	1	—	2	2	—	—	5
		—	21	12	—	10	3	—	6	52
St. Ann's Ward.	March	—	35	8	—	3	4	1	16	67
	June	—	28	7	1	1	2	—	—	39
	September ...	—	25	—	—	7	3	—	—	35
	December ...	—	12	13	—	10	3	—	—	38
		—	100	28	1	21	12	1	16	179
High Cross Ward.	March	—	20	4	—	2	3	—	22	51
	June	—	16	7	—	1	5	—	—	29
	September ...	—	12	3	—	—	6	—	—	21
	December ...	—	11	6	—	6	1	1	—	25
		—	59	20	—	9	15	1	22	126
Middle Ward.	March	—	25	7	1	1	6	—	33	73
	June	—	12	8	—	1	3	—	—	24
	September ...	—	14	7	—	3	3	—	—	27
	December ...	2	8	5	—	4	1	—	—	20
		2	59	27	1	9	13	—	33	144
Lower Ward.	March	—	7	10	1	1	4	—	14	37
	June	—	10	1	...	—	4	—	—	15
	September ...	—	21	6	...	4	2	—	—	33
	December ...	1	3	3	1	—	2	—	—	10
		1	41	20	2	5	12	—	14	95

House to House Inspection, 1903.

NAME OF ROAD.	No. of Houses.	NAME OF ROAD,	No. of Houses.
Albany Road	8	Brought forward	1012
Avondale Road	5	James Place	10
Albert Road	9	Ipplepen Road	11
Avenue Road	7	Kent Road	15
Antill Road	4	King Street	13
Albert Place	26	Lealand Road	2
Arthur Road	96	Lincoln Road	8
Asplins Road	4	Laurel Terrace	15
Baileys Lane	3	Love Lane	51
Bloomfield Road... ..	7	Moreton Road	11
Brunswick Court.. ...	16	Markfield Road	33
Broad Lane	2	Moselle Street	52
Brograve Road	36	North Grove	21
Charles Street	16	Orchard Place	12
Clarendon Road	32	Percival Cottages	5
Colina Road	13	Park Road	3
Culross Road	4	Pelham Road	10
Clyde Road	3	Pembroke Road... ..	3
Clinton Road	10	Poynton Road	60
Cornwall Road	34	Park Lane	30
Culvert Road	27	Princes Street	5
Colsterworth Road	192	Roslyn Road	18
Cunningham Road	1	Stanley Road	47
Compton Road	6	Summerhill Road	15
Dorset Road	29	Seven Sisters Road	43
Dawlish Road	8	Southey Road	10
Devon Road	48	South Grove	8
Effingham Road	31	Spondon Road	6
Elmar Road	31	Spratts Row	36
Edith Road	28	Stamford Road	60
Fairfax Road	36	St. Loy's Road	1
Fladbury Road	6	Scotland Green	46
Fawley Road	28	Selwyn Road	4
Forster Road	11	Stanley Grove	8
Fountain Square	10	St. John's Yard... ..	4
Grove Park Road	56	Templeton Road	214
Harefield Road	11	Tewkesbury Road	283
Henry Road	15	Tiverton Raad	59
Hale, The	8	Waggon Lane	6
Highweek Road	6	West Green Road	12
Hillside Road	1	Woodville Grove	22
Halefield Road	12	Welbourne Road	121
High Cross Road	11	Wycombe Road	43
Hampden Road	3	Waverley Road	21
High Road	62	Whitehall Street	54
Carried forward	1012	Total	2523

*Comparative Statement of Work executed during the years
1901, 1902, and 1903.*

	1901.	1902.	1903.
Complaints Received	857	756	580
Dust Applications	632	660	538
Cases of Infectious Diseases Notified	1204	2181	719
Houses Inspected—from House to House	889	3470	2523
Total No. of Houses Inspected... ..	2246	5453	8197
„ „ Re-Inspections	9974	21850	20782
„ „ Inspections and Re-Inspections	12720	30929	28979
Letters Written	2420	3500	4365
Notices Served	3469	4166	3314
Houses and Premises Cleansed or Repaired	442	781	811
Movable Dwellings and Tents Removed	98	252	525
Registered Lodging Houses, No. of Inspections ..	350	620	668
Workshops „ „	174	407	458
Laundries „ „	86	157	141
Bakehouses „ „	140	240	320
Slaughter-houses „ „	287	428	483
Dairies, Cow Sheds, Milk Shops „ „	850	593	831
Bodies in Mortuary	176	156	200
Cisterns Cleansed or Repaired	97	193	261
Flush Cisterns to W.C.'s Provided	10	8	6
Complaints Received as to Houses without Water	(not included)		16
W.C.'s Cleansed and Repaired or Water Supply } Rendered Efficient	363	459	523
Drains Examined, Tested, etc.	1800	3400	1863
„ Re-Constructed	818	379	347
„ Unstopped, Trapped, etc.	157	126	131
R.W. Pipes and Sink Wastes Disconnected	87	45	156
Soil Pipes and Drains Ventilated	163	209	219
Rooms Fumigated	981	1422	578
Dustbins Repaired	115	223	190
New Dustbins Provided			
Yards Paved or Drained	98	235	324
Smoke Nuisances Abated	6	12	18
Offensive Accumulations Removed	46	77	57
Animals kept improperly	22	16	9
Articles Disinfected or Destroyed(Washington-Lyons } Disinfecter used)	6997	31683	7222
Cases Removed to Hospital (M.A.B.)	509	929	344
„ „ S.P. Hospital, S. Mimms	46	48	3
„ „ Isolation Hospital, Downs Lane ..	...	405	...

TOTTENHAM URBAN DISTRICT.

COUNTY OF MIDDLESEX.—SANITARY WORK, 1903.

Inspections.							Notices.					Dwelling Houses.					Houses let in separate Dwellings or Lodgings.		Common Lodging Houses.		Movable Dwellings, Caravans, Tents, Etc.					
Complaints received.	Cases of Infectious Diseases notified.	Number of Premises periodically Inspected.	Houses Inspected from House-to-House	Total Number of Houses Premises, &c., Inspected.	Total Number of Re-inspections after Order of Notice.	Total Number of Inspections and Re-inspec-tions.	Letters Written.	Cautionary Notices Given.	Statutory Orders Issued.	Summonsees Served.	Convictions Obtained.	Houses, Premises, Etc., Cleansed, Repaired, Etc.	Closed as unfit for Habitation.	Re-opened after Repairs, Alterations, Etc.	Demolished.	Illegal Underground Dwellings Vacated.	Number Registered under Bye-Laws.	Periodical Frequency or Number of Inspections.	Number of Contraven-tions.	Number Registered under Bye-Laws.	Periodical Frequency or Number of Inspections.	Number of Contraven-tions.	Number observed during the year.	Number of Nuisances therefrom abated.	Number Removed from District.	
580	719	3901	2523	8197	20782	28979	4365	2559	755	1	1	811	11	10	—	—	—	24	Fre-quent-ly.	—	4	668	—	650	—	525

SANITARY WORK, 1903—CONTINUED.

Workshops and Work-places.		Laundries.		Bake-houses.		Slaughter-houses.		Cowsheds.		Dairies and Milkshops.		Unsd. Food.		Mor-tuaries		Adulterated Food.	
Number in District.	Periodical Frequency or Number of Inspections.	Contraventions of Factory Acts.	Number in District.	Number in District.	Periodical Frequency or Number of Inspections.	Contraventions of Bye-Laws.	Number on Register.	Periodical Frequency or Number of Inspections.	Contraventions of Bye-Laws.	Number on Register.	Periodical Frequency or Number of Inspections.	Animals seized.	Articles or Parcels seized.	Accommodation.	Number of Bodies received.	Samples taken.	Found Adulterated.
82	458	—	37	81	320	—	17	483	—	18	450	—	221	381	—	10	—

Water Supply and Water Service.										Privy and Ash Pits, Ash and Earth Closets.				Drainage and Sewerage.											
Cisterns.			Flush Cisterns provided to W.C's.	Draw Taps removed from Cisterns to Mains.	Percentage of Houses supplied on Constant System.	Above Ground Receptacles substituted for Pits.	Movable Receptacles substituted for Fixed.	Water Closets substituted for Dry Receptacles.	Water Closets					Drains.							Percentage of Houses Draining into Sewers.	100 p. c.			
									New, Provided.	Cleaned, Repaired, Covered, Etc.	Overflow Pipes Disconnected from Drains.	New, Constructed.	New Apparatus Provided.	Repaired, Cleaned, Etc.	Supplied with Water, or Supply Rendered Efficient,	Ventilated.	Percentage of Houses Provided with Water Closets.	Examined, Tested, Exposed, Etc.	Unstopped, Repaired, Trapped, Etc	Waste Pipes, Rain Water Pipes, Etc., disconnected			Soil Pipes and Drains Ventilated.	Disconnecting Traps or Chambers Inserted.	Reconstructed.	New Laid.
100 p.c.	Percentage of Houses Supplied from Mains	100	6	—	—	—	—	—	—	—	88	225	220	52	100	1863	131	156	219	33	347	—	100 p. c.		
1	Houses, Water laid on to.																								

SANITARY WORK, 1903—CONTINUED.

Disinfection.		Dust.				Dampness.							Sundry Nuisances Abated.																													
Rooms Fumigated.	578	Rooms Stripped and Cleaned.	488	Articles Disinfected or Destroyed.	7222	Dust Bins Repaired and New Bins Provided.	190	Movable Receptacles substituted for Fixed.	—	Periodical Frequency of Dust Removal.	Weekly.	538	Number of Complaints of Non-removal Received.	538	Roofs Repaired, Etc.	281	Guttering and Rain Pipes Repaired.	236	Gardens, Areas, Etc., Levelled and Drained.	324	Yards Paved and Drained.	85	Surface adjoining Houses Paved.	—	Dry Areas Provided.	123	Ventilation below Floor Provided.	—	Basements rendered Impervious.	—	Overcrowding.	19	Smoke.	18	Accumulations of Refuse.	57	Foul Ditches, Ponds, Etc., and Stagnant Water.	3	Foul Pigs and other Animals.	9	Other Nuisances.	25

First Meteorological Table.

Date.				Hours of Sunshine.	Rainfall in Inches.
				Hours.	Inches.
Jan.	1, 2, & 3	...	...	7.03	.25
"	10	...	...	10.6	.95
"	17	..	...	23.2	.21
"	24	...	..	4.8	.36
"	31	...	...	13.7	.37
Feb.	7	...	...	15.7	.22
"	14	...	...	11.3	.00
"	21	...	...	29.7	.01
"	28	...	...	16.6	1.13
Mar.	7	..	...	12.0	.86
"	14	...	...	31.3	.17
"	21	...	...	32.8	.17
"	28	...	...	39.8	.60
April	4	...	...	20.1	.81
"	11	...	..	23.2	.03
"	18	...	...	55.4	.05
"	25	...	...	27.8	.00
May	2	...	...	29.0	1.42
"	9	...	...	16.4	.79
"	16	...	...	20.0	.31
"	23	...	...	57.0	.34
"	30	...	...	66.1	.33
June	6	...	...	63.7	.13
"	13	...	...	21.2	2.34
"	20	...	...	16.5	3.73
"	27	...	...	65.0	.00
July	4	...	...	82.7	.00
"	11	..	...	59.5	.00
"	18	...	...	28.5	.57
"	25	...	...	30.6	3.18
Aug.	1	...	...	20.9	1.52
"	8	...	...	53.1	.35
"	15	...	...	42.1	2.11
"	22	...	...	45.2	1.11
"	29	...	...	33.9	1.23
Sept.	5	...	...	49.6	.86
"	12	...	...	39.4	.55
"	19	...	...	45.5	.01
"	26	...	...	28.3	.22
Oct.	3	...	...	30.5	.61
"	10	...	...	20.3	1.05
"	17	...	...	22.5	1.39
"	24	...	...	7.1	.60
"	31	...	...	21.0	1.39
Nov.	7	...	...	15.9	.23
"	14	...	...	4.8	.26
"	21	...	...	8.6	.07
"	28	...	...	6.1	1.18
Dec.	5	...	...	2.5	.28
"	12	...	...	1.6	1.12
"	19	...	...	9.3	.02
"	26	...	...	0.3	.00
"	27, 28, 29, 30, 31	...	...	5.7	0.1

Average amount of sunshine weekly 27·8 hours.
Average rainfall in inches weekly ·682 inch.

The influence of sunshine and fresh air upon health cannot be exaggerated ; dark and ill-ventilated rooms are the hotbeds in which disease of every kind thrives ; exposure for even a few hours to sunshine destroys the bacilli of consumption and most other diseases.

The average of the weekly amount of sunshine for the last 50 years is about 35 hours, so that “ the sun does not seem to shine as of old.”

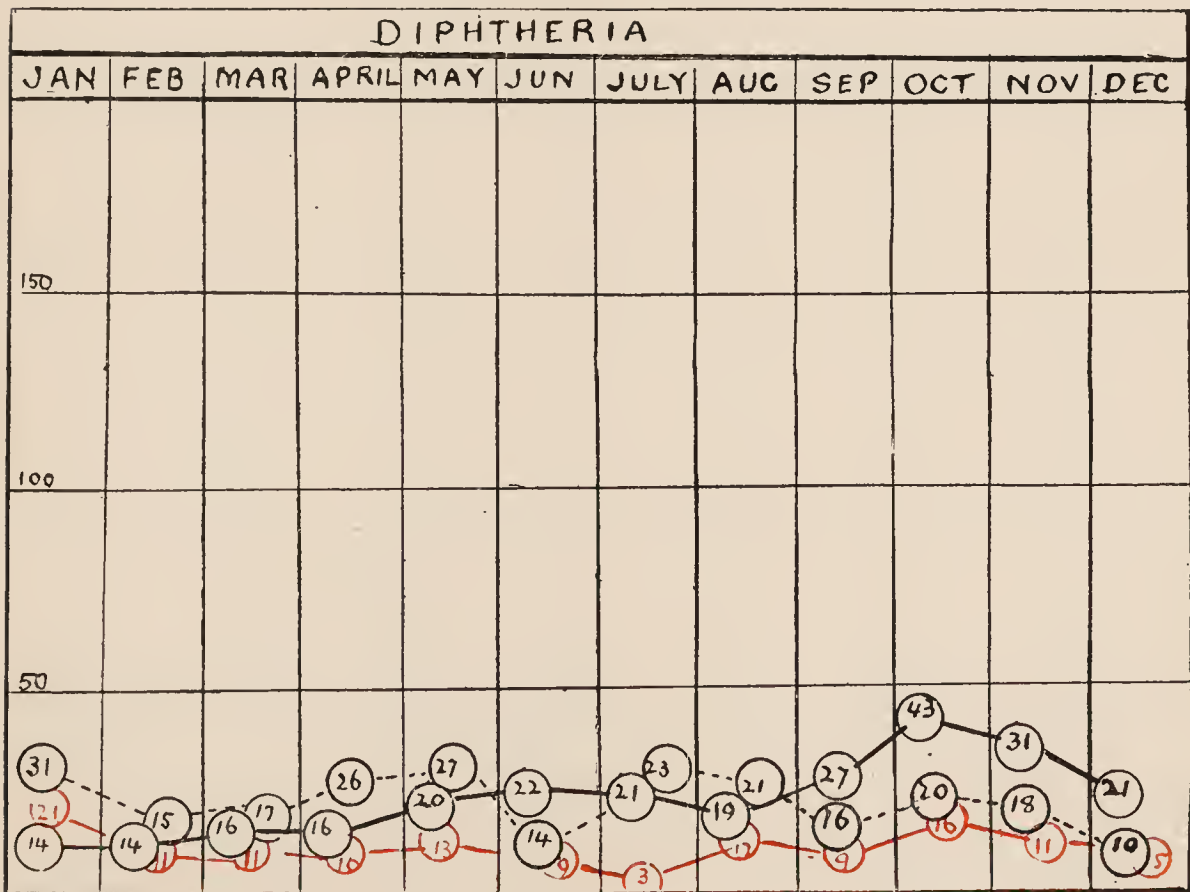
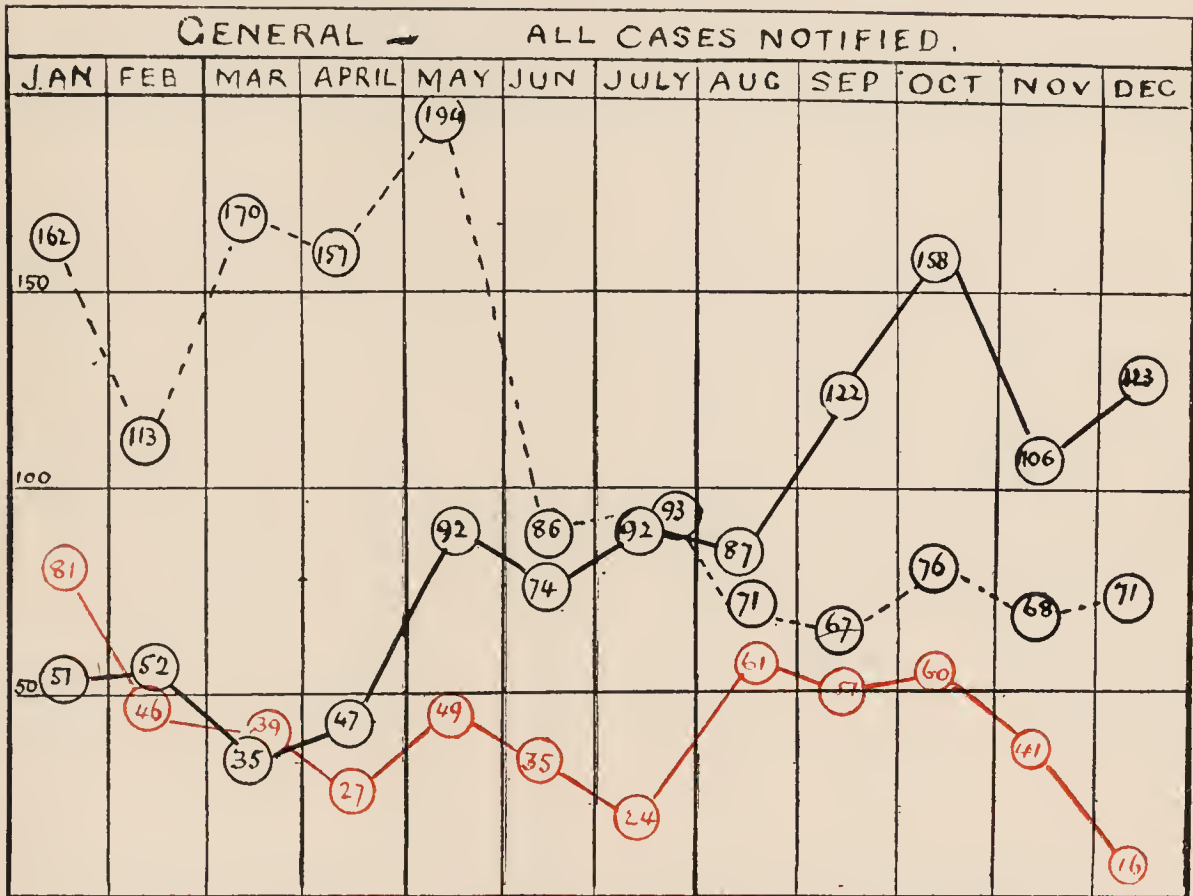
Second Meteorological Table.

Month.	Hygrometer.		Temperature.				Wind.
	Dry Bulb.	Wet Bulb.	Max.	Min	Earth.		Prevailing Wind.
					1ft.	4ft.	
JANUARY.							
Means	40·00	38·06	45·51	35·26	41·29	44·61	S. W.
Highest	50·00	49·00	52·00	46·00	44·00	45·00	N. W.
Lowest	24·00	24·00	35·00	23·00	38·00	44·00	N. E.
FEBRUARY.							
Means	32·53	32·28	39·47	30·35	36·40	42·70	N. E.
Highest	46·00	45·00	53·00	44·00	40·00	44·00	N. W.
Lowest	22·00	22·00	30·00	15·00	35·00	41·00	S. E.
MARCH.							
Means	44·19	40·71	51·90	36·61	42·32	42·90	S. W.
Highest	49·00	50·00	61·00	44·00	44·00	44·00	N. W.
Lowest	25·00	25·00	43·00	24·00	24·00	41·00	S. E.
APRIL.							
Means	47·26	43·43	55·20	38·78	45·53	45·23	S. W.
Highest	58·00	50·00	66·00	51·00	49·00	47·00	N. E.
Lowest	39·00	37·00	43·00	29·00	42·00	44·00	N. W.
MAY.							
Means	49·61	45·71	60·48	40·51	48·93	46·74	N. W.
Highest	61·00	57·00	70·00	50·00	54·00	49·00	S. W.
Lowest	39·00	37·00	49·00	30·00	44·00	44·00	N. E.
JUNE.							
Means	58·87	54·16	66·30	49·90	58·83	51·20	S. E.
Highest	75·00	66·00	81·00	60·00	60·00	56·00	S. W.
Lowest	47·00	43·00	54·00	37·00	53·00	49·00	N. W.
JULY.							
Means	61·03	56·51	70·16	51·58	59·71	55·25	S. W.
Highest	72·00	68·00	84·00	60·00	66·00	56·00	N. W.
Lowest	50·00	49·00	57·00	40·00	57·00	53·00	N. E.
AUGUST.							
Means	58·97	55·97	68·00	52·00	58·90	56·12	S. W.
Highest	64·00	60·00	76·00	59·00	60·00	58·00	N. W.
Lowest	52·00	48·00	61·00	44·00	54·00	56·00	S. E.
SEPTEMBER.							
Means	55·66	52·93	64·36	48·03	56·76	56·63	S. W.
Highest	64·00	62·00	74·00	62·00	60·00	57·00	N. W.
Lowest	46·00	42·00	54·00	36·00	54·00	55·00	N. E.
OCTOBER.							
Means	48·61	46·77	56·87	43·54	51·58	53·58	N. E.
Highest	58·00	55·00	64·00	53·00	54·00	55·00	N. W.
Lowest	36·00	35·00	47·00	36·00	50·00	52·00	S. W.
NOVEMBER.							
Means	43·10	41·83	49·43	38·83	48·30	50·83	S. E.
Highest	52·00	48·00	58·00	50·00	51·00	52·00	S. W.
Lowest	31·00	30·00	37·00	31·00	42·00	49·00	N. E.
DECEMBER.							
Means	40·16	38·77	44·93	36·67	42·74	46·93	N. E.
Highest	51·00	50·00	57·00	47·00	46·00	49·00	S. W.
Lowest	28·00	27·00	33·00	24·00	39·00	45·00	N. W.

CHART,

Shewing incidence of Infectious Disease in the Urban District of
TOTTENHAM.

	1901	1902	1903
Total No. of Cases ...	1,133	2,076	673
Estimated population...	103,243	107,003	117,797

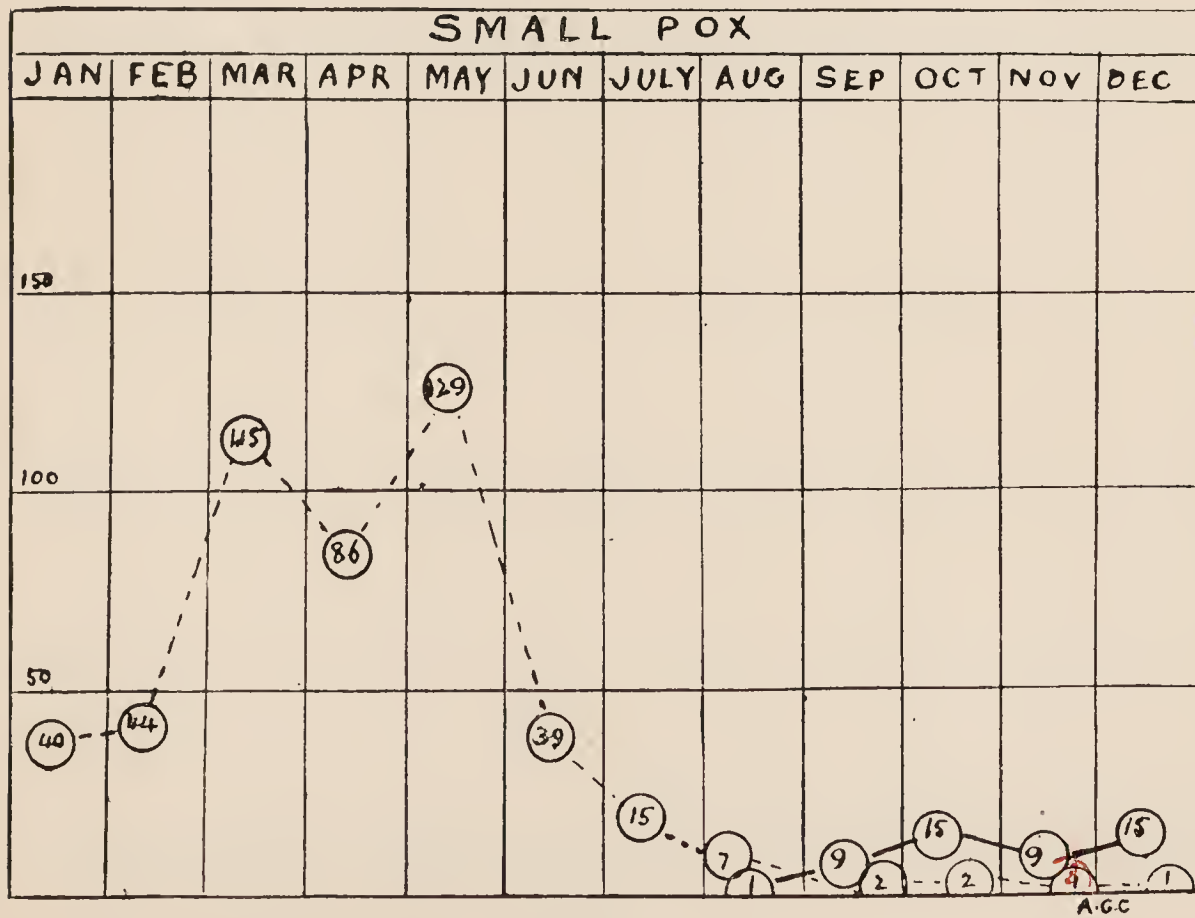
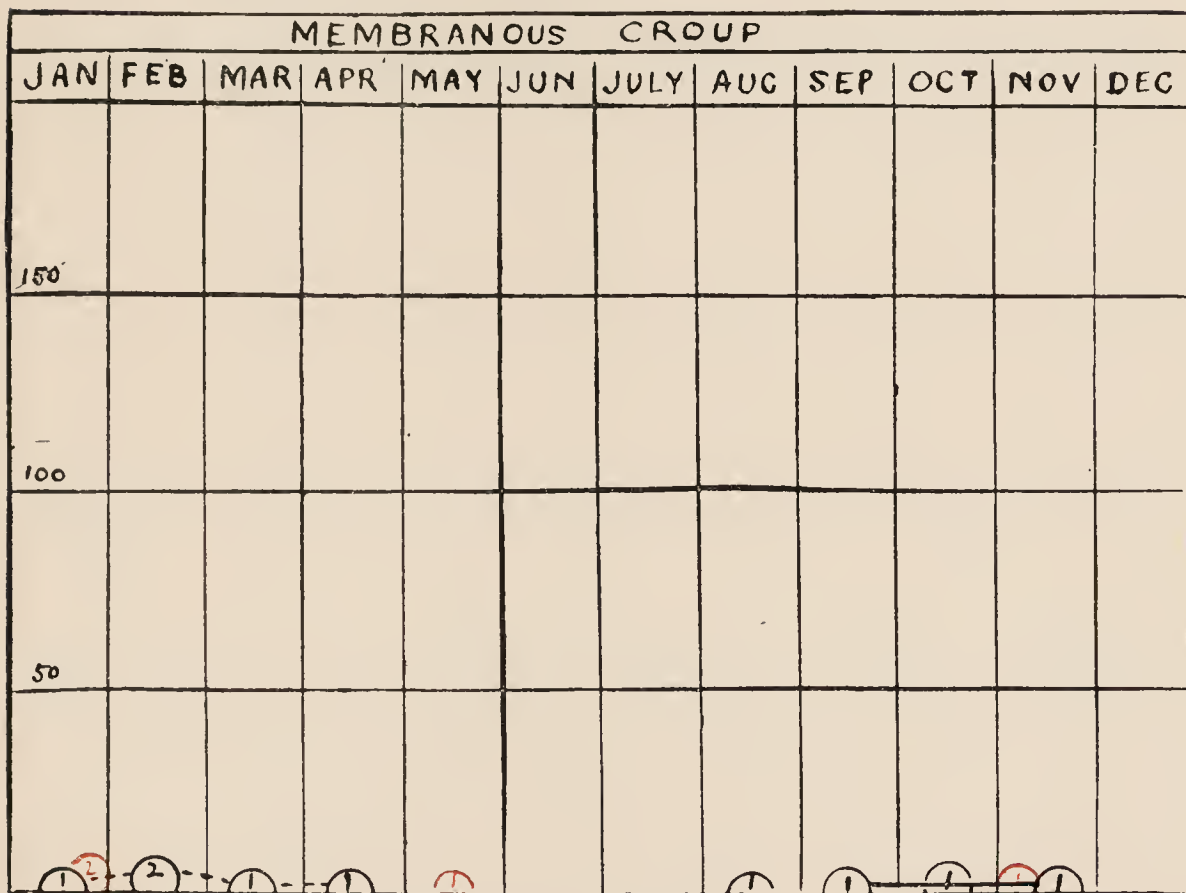


1901 —————
1902
1903 —————

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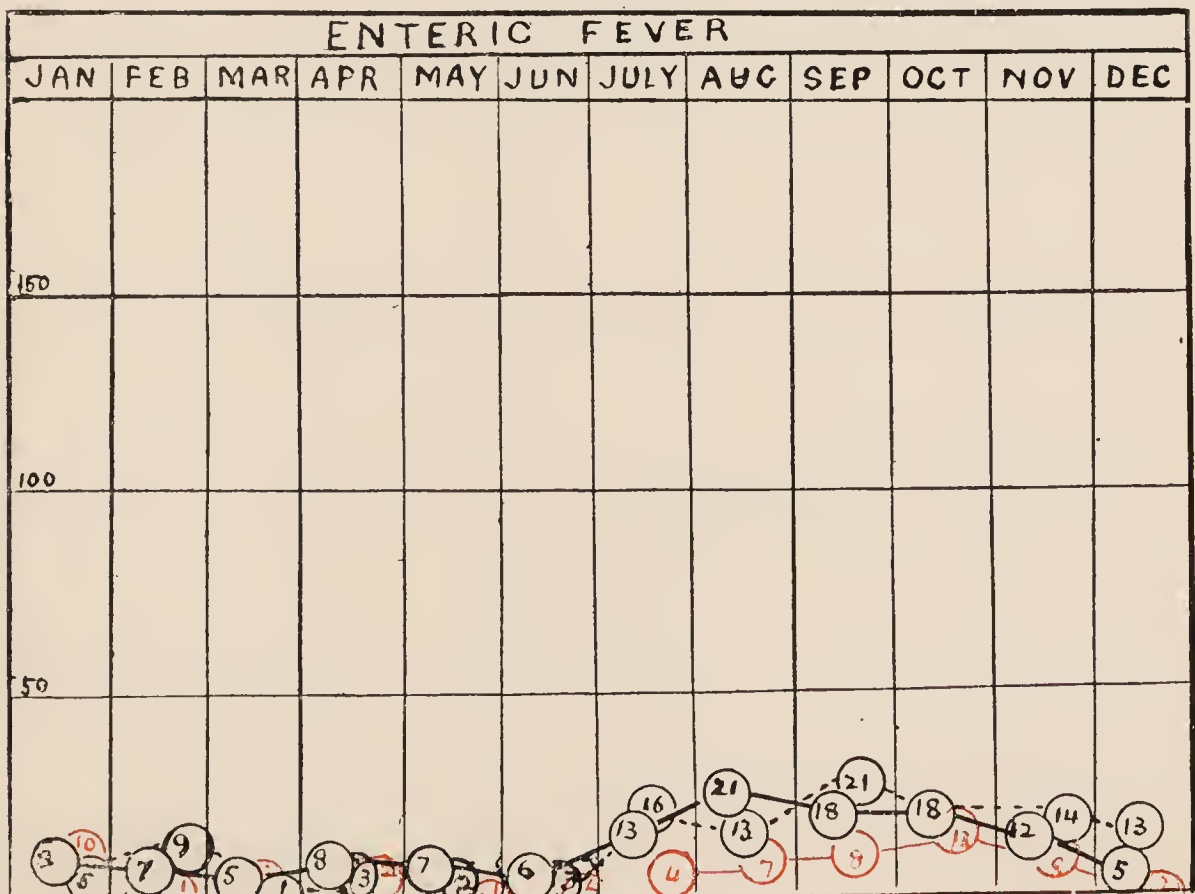
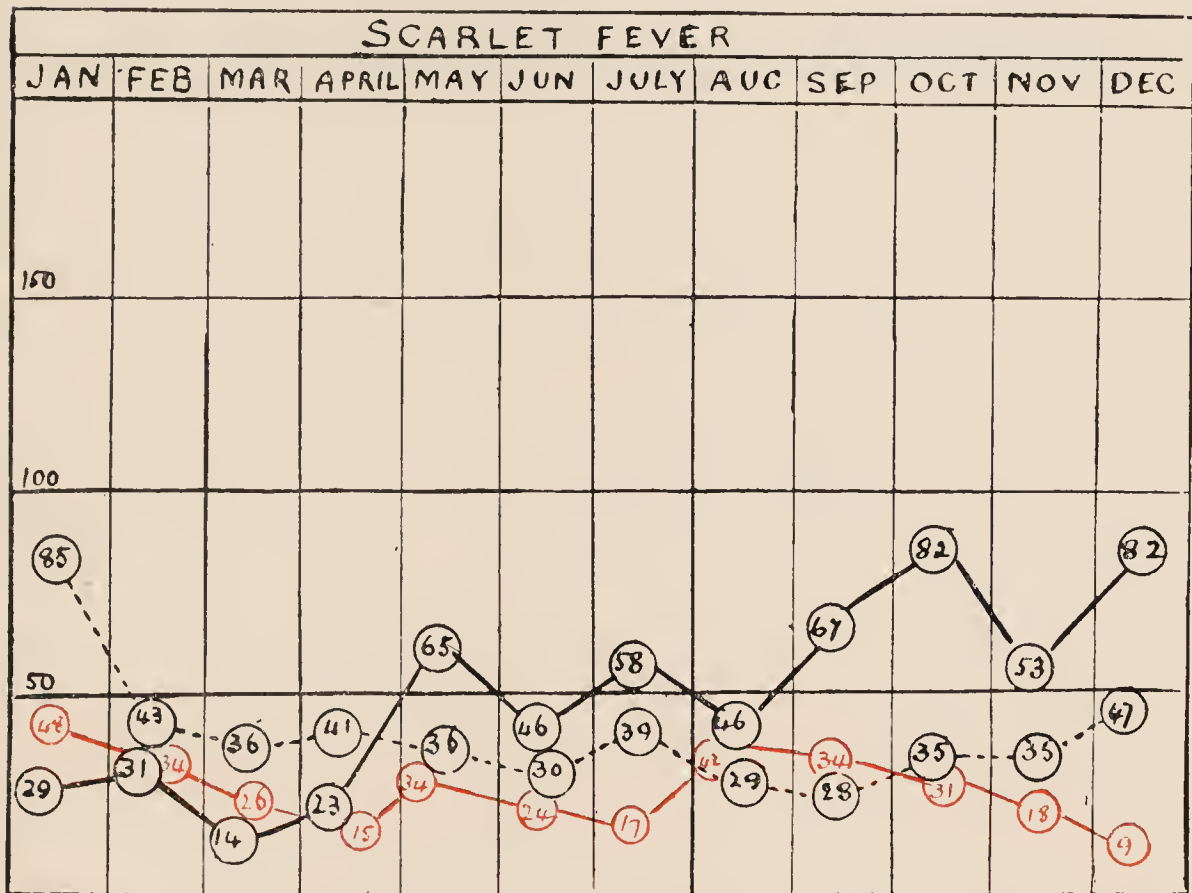
A.G.C.

1901 ---
1902
1903

CHART,

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	1901.	1902	1903
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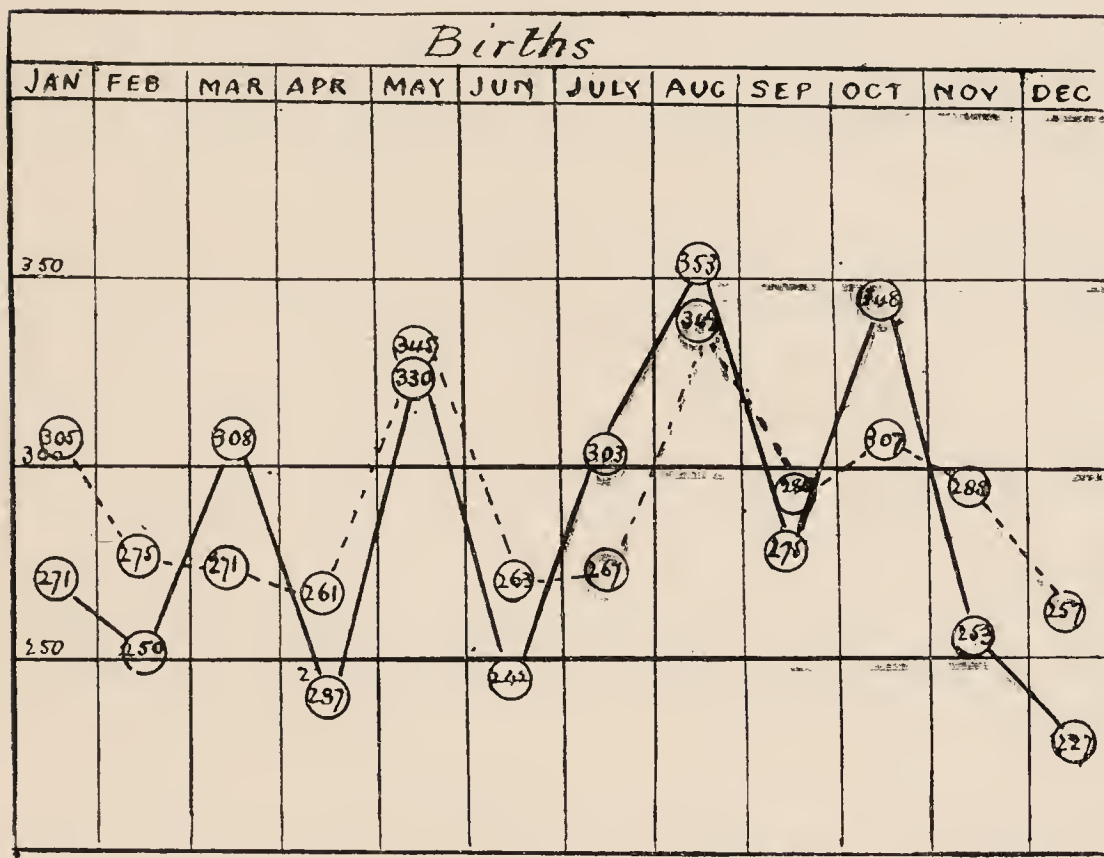
1901 —————
 1902
 1903 —————

CHART,

Shewing incidence of Births and Deaths in Tottenham during 1902 and 1903.

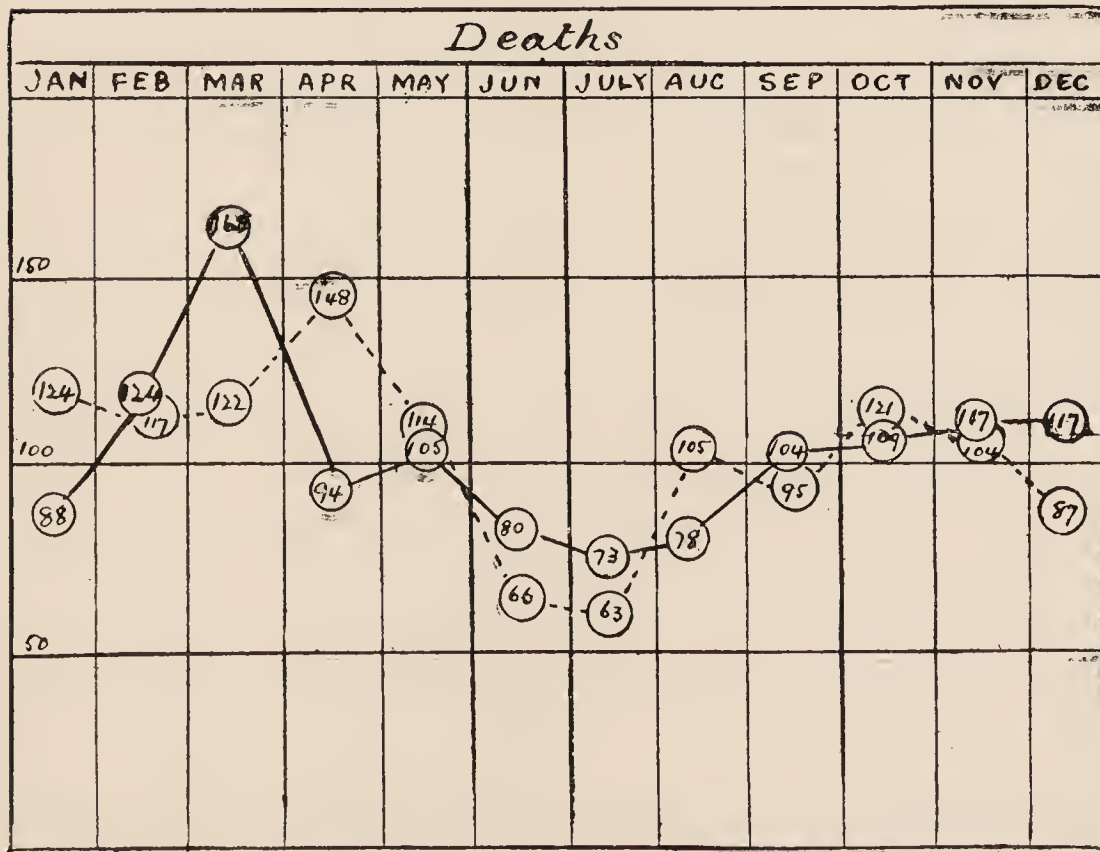
TOTAL BIRTHS (1902) ... 3397.

Ditto (1903) ... 3476.



TOTAL DEATHS (1902) ... 1438.

Ditto (1903) ... 1268.



1902 —————
1903
=



MAP OF SANCTIONED ELECTRIC TRAMWAYS.

The Three Thick Lines show proposed future extension.

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